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ABSTRACT

Presented are annotations on more than 100 popular books selected according to their appropriateness to the interests of classroom teachers and their students. This is designed to facilitate the introduction of contemporary population education topics into the K-12 classroom. Selections are organized both by subject and by reading level, including division into teacher-level readings and readings appropriate for students in grades K-12. (Author/RE)

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POPULATION GROWTH: The Human Dilemma

An NSTA
Environmental
Materials
Guide

Kathryn Mervine Fowler

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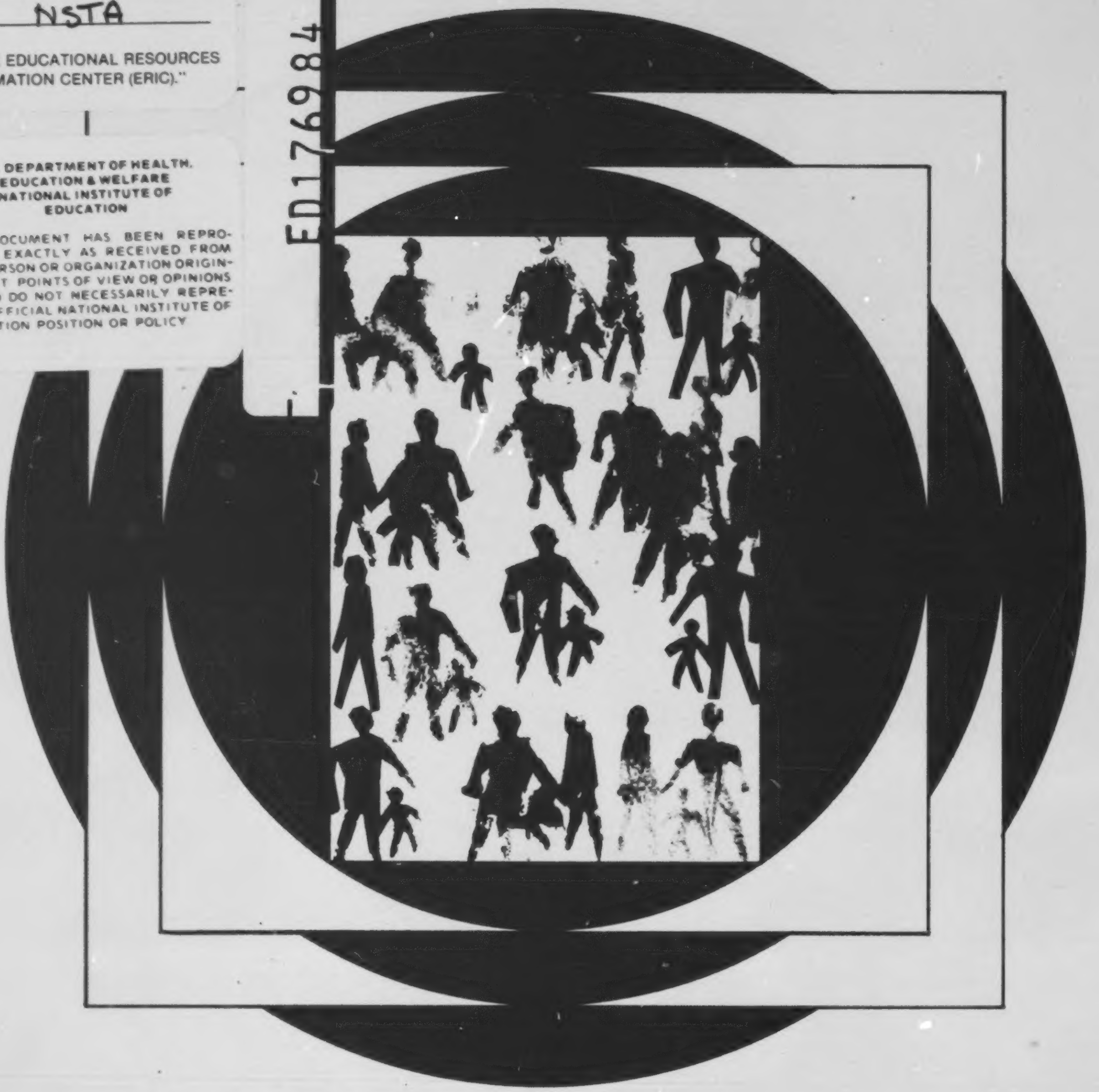

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POPULATION: The Human Dilemma

An NSTA Environmental Materials Guide

Kathryn Mervine Fowler

National Science Teachers Association
1742 Connecticut Avenue, N.W.
Washington, D. C. 20009

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POPULATION: The Human Dilemma

Kathryn Mervine Fowler

A Product of the NSTA Education Materials Guides
on Food and Population Project

John M. Fowler, Project Director

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PREFACE

This is the third in a series of NSTA *Material Guides* designed to facilitate the introduction of contemporary environmental topics into the K-12 classroom. It is primarily an annotated bibliography, containing brief descriptions of more than one hundred popular level books selected on the basis of their appropriateness to the interests of classroom teachers and their students. No attempt has been made to provide an all-inclusive listing of population titles, rather we have attempted to select those books which seemed to us to be outstanding in terms of their readability and accuracy. We have tried to include references which reflect the broad range of viewpoints held on various population topics and which are readily available, either through commercial bookstores or by direct order from their publishers. We have purposely omitted from this bibliography textbooks, magazine and journal articles, and specialized works dealing exclusively with one particular aspect of population study.

The books chosen for inclusion here have been organized both by subject (i.e., Basic General Reference, World Population, Population of the U.S., etc.) and by reading level (i.e., Readings for Teachers, Readings for Students, K-12, etc.). Most of the books, of course, are not as specialized as these categories would imply and there is considerable overlap. The user who is interested in one specific topic would do well to look at the student readings as well as at those recommended specifically for teachers and to look for books in the Basic General Reference section.

We have supplemented this bibliography with several appendices designed to provide a sampling of the kinds of teaching materials currently available to the population educator. These include a guide to films, a guide to curriculum materials, and a listing of the various agencies and organizations involved in population education. It is here that the reader will find brief descriptions of some of the excellent materials produced by organizations such as the Population Reference Bureau, Zero Population Growth, etc. Most of these are easily available at little or no cost and should prove to be quite useful in classroom teaching.

Other *Materials Guides* in this series include: *Energy-Environment Materials Guide* (NSTA, Stock No. 471-14694; $2.00; 1975) and *Hunger: The World Food Crisis* (NSTA, Stock No. 471-14708; $2.50; 1977).

ACKNOWLEDGEMENTS

Many people were instrumental in facilitating the preparation of this *Guide*. Arlene Lehrer of the NSTA staff took on the difficult task of selecting and reviewing the reading materials for the pre-school through junior high school reading lists. Very helpful reviews of early drafts of this manuscript were provided by a number of people who have been deeply involved in population education. We wish to thank in particular Sherry Barnes of Planned Parenthood-World Population, Jim Chamberlain and Debra Haffner of the Population Institute, Helen T. Lambert of Zero Population Growth, Robert P. Warrall of the Population Reference Bureau, Inc., and J. Martin Weber of the Sacramento County Office of Education.

We also very much appreciate the generosity of Joseph Dasback of the AAAS, Nelly Harris of the Bureau of the Census, Simone Sauterot of the United Nations Department of Economic and Social Affairs, Linda Starke of Worldwatch Institute, and Stephen Viederman of the Population Council for making various publications of their respective organizations available to us. Again, we are indebted to the many book publishers who provided us with review copies of their materials and look forward to their continued cooperation in the preparation of future guides.

We wish to thank Brenda Kay McClintock, Robert N. Virkus, and Mary T. McGuire of the NSTA staff for their help and support in preparing this manuscript for publication, and finally, to express our sincere appreciation for the U.S. Office of Environmental Education and to its director, Walter Bogan, for the support of this project.

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Part I
READINGS FOR TEACHERS

READINGS FOR TEACHERS

An annotated bibliography of books and articles selected for the classroom teacher.

Basic General References

1) Population, Headline Series, No. 206, Valerie K. Oppenheimer (New York: Foreign Policy Association) June 1971 (95pp.; $1.40) Available: Foreign Policy Association, Inc., 345 E. 46th Street, New York, New York 10017.

Published by a private, nonprofit, nonpartisan educational organization, this is an excellent reference for anyone seeking a quick, practical, and popularized introduction to the magnitude of the world population problem and the policy issues involved. The aim of the Headline Series, of which this book is a part, is "to stimulate wider interest, greater understanding, and more effective participation by American citizens in world affairs."

No previous exposure to the population problem is assumed, and the text is almost entirely descriptive, with very little in the way of support data. Only the simplest tables and graphs are employed to illustrate the points under discussion. As a result, this is an extremely readable book that manages to carry a great deal of information about population issues without seeming weighty or forbidding. To cover so broad a topic in so brief a book has meant that many topics are not discussed and many others are necessarily mentioned in passing only, but the basic concepts are here and each is presented clearly and concisely.

The introductory chapter provides an extremely useful overview of world population growth, past, present, and future. It is followed by two very informative chapters on the race between food production and population growth and the environmental impact of industrialized societies.

The remainder of the book, however, is focused on one topic — family planning. Oppenheimer does a good job of noting the difficulties involved in trying to control population growth by simply putting current contraceptive knowledge into communities via mass educational programs. She argues quite persuasively that subtle factors are at work to sustain growth rates and that the way to combat their influence is through dramatic social change away from pro-natalism, primarily through upgrading the status of women in society and generally improving the standard of living by stimulating economic development. Several policy questions are raised briefly in the concluding chapter, but for the most part this is a book designed to raise questions, to stimulate interest, and to establish a base of understanding upon which to build through further reading.

2) The People Problem, Dean Fraser (Bloomington, Indiana: Indiana University Press) 1973 (248pp.; $2.95).

There are certain topics, like doubling times, for instance, which would seem impervious to most attempts at making them both interesting and intelligible to the layman. Fraser, however, has met the challenge admirably. He provides here an excellent introduction to a wide range of population topics, all of them carefully explicated, often with very clever illustration and wit. It is, however, a serious and authoritative reference, full of the kinds of background information that is necessary for any real understanding of what the population dilemma is all about.

Fraser begins by examining exponential expansion. He strips away the mystery that surrounds growth by doubling by using terms that are quite familiar to the average reader, but which make the point clearly and strongly that, "even with no further increase in rate we can confidently predict that the present doubling every thirty-five years will soon prove impossible." In Part II, "Factors Limiting Population Growth," Fraser provides separate chapters on the interrelationship between population and space, food, water, mineral resources and energy, pressure from competitors, and pollution. Finally, in "Population Control," Fraser provides a good overview of the special dimensions of birth control questions, the various methods of control which are currently available, and the increasing tendency for birth rates to drop only in the more developed countries.

All of this combines to provide the reader with a very broad, incisive introduction to the basic concepts and tools which permit an understanding of the population dilemma.

3) The Human Population, A *Scientific American* Book (San Francisco: W.H. Freeman and Co.) 1974 (147pp.; $4.50).

Originally published as the September 1974 issue of *Scientific American*, this collection of eleven essays provides a comprehensive overview of the demographic problems confronting the world today. The familiar, basic numbers for world birth and death rates are all here, but the bulk of the articles go beyond mere head counting to address the complex social issues that have accompanied the transitions in population growth and change.

Ronald Freeman and Bernard Berelson introduce the volume with an extremely useful review article that summarizes the historical trends in population growth and provides a look at various future growth scenarios. A more detailed examination of the causes for the current growth rates is offered by Ansley Coale in an article that focuses on the dramatic decline in death rates that has occurred over the past 200 years. Sheldon Segal provides a fascinating account of the physiology of human reproduction and the Stanford geneticist, L.L. Cavalli-Eforza, provides a complimentary discussion of the genetics of human population. The seven remaining articles all deal with social aspects of the population transition: migrations, the family in developed countries, factors affecting the decline in population in the developed countries, the changing status of women, population patterns in the developing countries, the food and population problem, and the transfer of technology to underdeveloped countries. There are nearly 100 illustrations scattered throughout the text, many of them in color, and a fairly extensive bibliography is appended.

As is customary with *Scientific American*, the articles are exceptionally well written and even the more difficult topics are dealt with in a style and language that make them intelligible and interesting to the general reader. In short, this is an excellent reference with which to begin the study of the human population, and it is one that should be of interest to a broad audience, including teachers and the more capable high school student.

4) Population: Dynamics, Ethics and Policy, edited by Priscilla Reining and Irene Tinker (Washington: American Association for the Advancement of Science) 1975 (184pp.; $4.95) Available: AAAS, 1515 Massachusetts Avenue, N.W., Washington, D.C. 20005.

The thirty-one papers which comprise this compendium appeared in *Science*, the journal of the AAAS, over the decade 1965 to 1975. They provide a very broad overview of the kinds of population problems that are currently under research. The topics range from very specialized ones, such as the physiology of reproduction and the relationships between birth order, family size and intelligence, to the very broad topics of population growth and ecological stress.

All of the papers have been authored by reputable researchers within their particular fields, including Bernard Berelson, Kingsley Davis, Frederick Jaffe, and Ansley Coale. While they are addressed to a scientifically literate audience, they are not so specific and detailed so as to be of interest only to colleagues within the same research areas. Rather, they are designed to inform and involve the nonspecialist in the issues currently under study, and they often provide a kind of state-of-the-art overview of research into a particular question or policy issue. Almost all of them are accompanied by tables of data and/or clarifying illustrations, along with fairly extensive citations of related literature.

Anyone wanting a good summary of what has been happening in population research during the past decade should find this to be an invaluable reference. There is a tremendous amount of information condensed into these articles and they make for extremely stimulating reading. In short, this compendium provides an excellent mechanism for bringing the reader up-to-date on population questions, and it suggests the broad array of topics which can serve as guidelines for teaching within the areas of population dynamics, ethics, and policy.

5) An Essay on the Principle of Population, Thomas Robert Malthus, edited by Philip Appleman (New York: W.W. Norton and Co.) 1976 (260pp.; $3.45).

Several population anthologies are currently in print, but this is a particularly scholarly and thoughtful collection which should be of special interest to the reader seeking an introduction to population literature. It is, of course, built around the writings of Malthus. His two principal papers, "An Essay on the Principle of Population" (1798) and "An Essay on the Principle of

Population: From the Revised Edition" (1803-) are here in their entirety.

They are preceded, however, in a section titled "Influences on Malthus," by a series of papers from David Hume, Robert Wallace, Adam Smith, Condorcet, and William Godwin, which set the Malthus works nicely in the context of concurrent critical thinking. Similarly, the two sections which follow, "Nineteenth-Century Comment" and "Malthus in the Twentieth Century," contain reprints of some outstanding, related papers by Engels, John Stuart Mill, Darwin, Marx, Shaw, and Joseph J. Spengler, which carry the Malthusian debate into the 1970's. Taken together, these chapters serve to set the stage for the Malthus papers and to provide the reader with at least a general sense of the thinking that surrounded them.

Appleman then provides a closer examination of contemporary population theory and commentary, beginning with a look at "Some Contemporary Anti-Malthusians," including Pope Paul VI, Barry Commoner, and Goran Ohlin, the Swedish economist. Warren S. Thompson's "The Idea of an Optimum Population" (1935), and Gunnar Myrdal's, "Population: A Problem for Democracy" (1940), are included to address the critical issue of molding population growth to a size which best fits some concept of the greatest social "good" or welfare. This theme is picked up in the next section, "The Current Demographic and Environmental Situation," which includes reprints of some recent papers by Kenneth Boulding, Alan Sweezy, and Robert Heilbroner. Each of them provide a distinct and provocative examination of the implications of Twentieth Century population trends. One response to these predictions has been to call for some sort of population control, and in "Towards Control of Fertility," Appleman reprints a series of papers addressed to the political and cultural complexities of attempting to limit population growth.

Finally, in "Some Neo-Malthusian Proposals," Appleman has selected a series of papers which deal with everything from the triage controversy to Garrett Hardin's "Tragedy of the Commons" analysis, the Ehrlichs' warnings over the impact of population on resources and environment, and Lester Brown's *In the Human Interest*. Also included is "Malthus and America," a 1974 government report which argues that, unless present trends in population growth and food production are altered, the predictions of Malthus may well come true in the decades ahead. All of this is introduced by a very helpful and well-written paper by Appleman which provides an overview of the themes and trends in the papers which comprise this anthology.

6) Readings in Population, edited by William Petersen (New York: The MacMillan Co.) 1972 (483pp.).

"Readers" have become a popular item in recent years, and as new topics grow in popularity and interest, inevitably several anthologies appear on the bookshelves, each purporting to provide the definitive collection of readings for that particular subject. Unfortunately, many of them show a lack of selectivity and organization, reflecting more the haste with which they have been assembled than the scholarship which has gone into their editing. This particular anthology, edited by a professional, respected demographer, is an example of how well the genre can be utilized by the serious educator.

Petersen has carefully selected the entries here to reflect his perception of the major trends in population demography, and he has exercised great care to provide, whenever possible, an added dimension to the usual discussion of a topic. For instance, he uses papers on the techniques involved in counting the populations of China and the Soviet Union to illustrate the complexities of the general topic of collecting population data. There are some forty papers included within the collection, organized under ten topic headings: Population Growth, Past and Future; Population Theories; Concepts and Data; Age and Sex; Subnations (i.e., segregated populations); Classification by Residence (i.e., urbanizations, etc.); Migration; Health and Mortality; The Analysis of Fertility; and Population Policy. These last two topics are especially well represented as Petersen views them as critical issues to an understanding of population dynamics.

Extensive references are included at the end of most of the papers, adding greatly to the usefulness of what is really an outstanding reference, either for use in the undergraduate classroom or as an excellent introductory tool for the concerned layman interested in gaining a broad perspective on the entire range of population issues.

7) Population Crisis: An Interdisciplinary Perspective, edited by Sue Titus Reid and David L. Lyone (Glenview, Illinois: Scott, Foresman and Co.) 1972 (220pp.; $4.95).

An outgrowth of an interdisciplinary course in population and ecology taught by the authors at Cornell University in 1968, this reader provides undergraduate students with a sampling of opposing views on population issues, along with an introduction to the ways in which various disciplines contribute to an understanding of the population problem. The thirty-three selections collected here are grouped under six major headings: The Population Problem and Projections for the Future; The Natural Encounter; Man and Other Species; The World Food Problem; The Quality of Life; and Population Regulation.

While many of the authors share the biology and sociology background of the authors, there is also a good sampling of opinion from economists, ecologists, historians, political scientists, geographers, and humanists. All of this adds up to a very broad-based introduction to the many factors which influence the dimensions of the population crisis. No previous background in any of these disciplines is assumed, and as the selections have been chosen for an undergraduate reading audience, they are generally very descriptive, nontechnical, and concise.

This has become quite a popular reader, which reflects not only the comprehensiveness of its coverage, but the fact that the articles are also uniformly quite readable and interesting. While it is probably not as useful a reference for the general reader as it would be for a student in the context of a course, it does provide a good survey of the controversies that are involved in the population debate. In that sense, it does provide a useful background against which to set the strongly opinionated books that often appear in the popular literature.

8) Population: A Clash of Prophets, edited by Edward Pohlman (New York: New American Library) 1973 (492pp.; $1.95).

Essentially an anthology of population writings, this compilation of everything from book and journal excerpts to government reports, provides an invaluable overview of the diversity of opinions on the population question. Pohlman, a university professor and familiar commentator on population issues, has selected eighty-five references for inclusion here, and groups them under twelve headings: The Population Crisis: 1930's Style; The Population Crisis: 1970's Style; Too Few Babies in Europe and the United States?; Population Growth in Non-Western Countries; Environment, Pollution and Population; Food and Population; Economics and Population; National Power and Population; Strategies for Population Control in Developed Countries; Strategies for Population Control — the World; Other Voices, Further Views; and Heads of State.

The list of authors represented provides a "Who's Who" of the population field, with everyone from Robert Malthus to Garrett Hardin, Paul Ehrlich, and J.J. Spengler providing a contribution. While the papers vary a great deal in their thoroughness, all are suitable for reading by college students and educated layman. Together, they provide an excellent, single-source introduction to the complexity of the population debate and the statistics supporting various contentions in the continuing discussion of population problems. Among these are its magnitude, the distinction between and implications of western and non-Western population growth patterns, impact of population growth on the environment, feeding a growing population, economic and political solutions, viability of various strategies for controlling population growth, both in developing and in the emerging nations, and complex moral and ethical decisions which population questions raise.

Unfortunately, Pohlman provides only a very short introduction, leaving readers to wend their way through all these various arguments on their own. It is, however, a worthwhile endeavor, and after having read through this anthology the reader will be familiar with the major debate issues that define the "population problem."

9) The Population Dilemma, second edition, edited by Philip M. Hauser (Englewood Cliffs, New Jersey: Prentice Hall) 1969 (211pp.; $2.45).

Originally published in 1963 as background reading for the twenty-third American Assembly, which met to consider the implications for national and international policy of rapid population growth, this collection of essays has gone through thirteen printings and was finally revised and updated in 1969. It has attracted a

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wide readership and appears as recommended reading on many population bibliographies. It is, in fact, an impressive book, and it provides a very satisfactory introduction to most major population topics.

A particularly good overview of the current population situation and the resultant problems is presented in Hauser's introductory chapters, which address world population growth in terms of projected rates of increase, variations in developed and emerging nations, effects of population on economic development, etc. A much more detailed discussion of population growth in less developed countries is provided by Irene Taeuber's essay. She examines "the demographic transition" in several countries, the age structure of existing developing country populations, and the impact of population growth and structure on the social and economic situations in traditional societies. The focus shifts in Chapter 5 to the population of the United States, and Hauser provides a very good historical review of major trends, and a fairly detailed look into the future.

The problem of matching our resources to our growth rate is examined in Chapter 6. A very moderate approach is taken, refuting both many of the alarmist projections that have called for irrefutable famine, and many of the optimistic claims that technology can and will solve all our resource problems. It is clear, however, that some limits must be placed on population growth, and in Chapter 7, two demographers and a biomedical researcher provide a discussion of the problem of population control. Their discussion includes a good overview of the kinds of social forces that operate on any attempt to limit population, and a useful review of the various approaches that have been taken and may be tried in the future to curtail population growth. Finally, a very informative discussion of the issues involved in population policy is provided, with specific attention to how those issues affect policymaking in the United States.

10) Population: Quantity Vs. Quality, Shirley Foster Hartley (Englewood Cliffs, New Jersey: Prentice Hall) 1972 (343pp.; $6.50).

Subtitled "A Sociological Examination of the Causes and Consequences of the Population Explosion," this is an impressively comprehensive discussion of the historical roots and contemporary consequences of population growth. Two themes are prevalent throughout the text, one directed to the contrast between growth implications for developed versus emerging nations, and a second dealing with the ways in which population growth has retarded efforts to improve the quality of life throughout the world. Hartley states at the outset: "Our inability to maximize both the quantity and the quality of human life is not merely something to worry about as we look forward to the future; trade-offs have already been occurring as a result of the recent population explosion. The so-called "Development Decade" of the 1960's would have been declared a great success if population growth had not reduced or nullified the advances made in many fields."

While the coverage of topics here is very broad, Hartley has made a special effort to translate the basic data related to population growth into terms that are easily understandable to the nonprofessional. Extensive references are provided at the end of each chapter to enable the reader to go more deeply into areas that are given abbreviated treatment in the interest of providing as comprehensive a discussion as possible. Generally, the topics covered include: the pace of recent population growth; past, present, and future world population growth projections; the causes and consequences of population growth, both in developed and emerging nations; and the potential impact of population theories and ideology on national policy.

While this is probably more suitable as an undergraduate sociology text, it should be quite useful introductory reading for anyone with a serious interest in learning the basic concepts in population dynamics. There is sufficient data to make it a useful reference book as well, particularly for anyone teaching this topic as part of a broad-based, policy-oriented course.

World Population

1) World Population Trends: Signs of Hope, Signs of Stress, Worldwatch Paper #8, Lester R. Brown (Washington: Worldwatch Institute) October 1976 (40pp.; $2.00) Available: Worldwatch Institute, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036.

This is an extremely useful overview of world population trends during the years 1970 to 1975. Designed to bring together the perplexing mass of data that has been collected around the world on birthrates, employment of women, etc., it provides the interested layman with a concise picture of what is happening in terms of world population patterns and what those trends suggest for the future.

Brown is one of the foremost writers and commentators on international development and a frequent contributor to *Science, Scientific American,* and various international policy journals. He writes concisely and fluidly, managing to translate complex statistical tables and demographic concepts into language that is both understandable and interesting to the nonprofessional. There are several tables and graphs included here to illustrate the text, but for the most part this is a descriptive essay which provides in broad outline an excellent summary of both the promise and the threat inherent in the population trends of the early 1970's. On the positive side, Brown notes, the decline by one-third of the U.S. population growth rate between 1970 and 1975, and the general slowing in the growth of world population. Unfortunately, not all of this is due to declining birthrates, and Brown expresses substantial concern over the increasing death rate due to hunger-induced factors, including famines and malnutrition.

Brown briefly discusses the circumstances that have resulted in stable or near-stable population growth in four countries: the German Democratic Republic (East Germany), the Federal Republic of Germany (West Germany), Luxembourg, and Austria, and notes that several other countries are beginning to show similarly encouraging trends. He then turns to the issue of increasing death rates in the poorer countries and carefully documents the kinds of food shortages causing a decline in food reserves and an increase in famines, such as those which have thinned populations in Bangladesh, India and in the African countries south of the Sahara — Senegal, Mauritania, Niger, Upper Volta, Chad, and Mali.

Finally, Brown turns to a discussion of the population prospect for the future, focusing in particular on the growing body of evidence which indicates that "fertility levels fall most rapidly in societies in which basic social needs are satisfied." Brown concludes: "The key to the speedy adoption of appropriate population policies in the poorest countries is likely to be the realization, squarely faced, that the only real choice governments have before them is not whether population growth will slow, but how? Will it drop because birthrates fall quickly, or because the sporadic rises in death rates witnessed during the last five years continue, becoming even more pronounced as local food producing systems deteriorate further and as food scarcities become even more serious?"

2) "World Population: Status Report 1974," *Reports on Population/Family Planning,* Bernard Berelson, January 1974 (47pp.) Available: The Population Council, One Dag Hammarskjold Plaza, New York, New York 10017.

Prepared as part of the 1974 World Population Year and the World Population Conference activities, this overview of the population situation and what is being done provides an excellent introduction to the whole range of current topics. Subtitled, "A Guide for the Concerned Citizen," it is written in clear, intelligible language, with numerous graphs and tables to illustrate the necessary background data.

The first half of the report, "Population Growth: Past, Present and Prospective," provides a review and analysis of basic demographic concepts and data in four areas: Developing and Developed Countries, The Momentum of Growth, Population Migration, and The Consequences of Population Trends. The remainder is directed to "Policies and Programs," with separate sections on the United Nations, the developed countries, the developing countries, and general efforts to combat the trend toward increasing urbanization, to provide reliable population education, to collect more accurate demographic data, and to design good population programs in countries around the world.

A very useful bibliography is appended, and the report concludes with a commentary by Berelson in which he briefly reviews the historical patterns of population growth and concludes: "In the time scale appropriate for human reproduction, only a few generations must achieve this momentous transition in human life. Before Pasteur, societies required high birthrates to maintain themselves in quantity; after Fleming, societies require low birthrates to maintain themselves in quality. We are in the midst of the transitional generations, and accomplishing this adjustment is a prime historic task of our time. It is this generation, minus one and plus two, that must complete the job."

3) World Population Growth and Response, Population Reference Bureau (Washington: Population Reference Bureau) April 1976 (271pp.; $4.00) Available: PRB, 1337 Connecticut Avenue, N.W., Washington, D.C. 20036.

Produced under contract to the U.S. Agency for International Development (AID), this survey of world population trends during the decade 1965-1975 is an extremely useful reference for teachers and students alike. Major population developments, worldwide, regional, and in individual countries, are presented in a very readable text, accompanied by numerous graphs and illustrations.

The opening chapter is an overview of the world population situation. It includes a very good explanation of what the demographic figures for the past decade mean, what kinds of programs have been undertaken around the world to try to influence population trends, and what kinds of social changes — including the changing status of women — are at work to complement family planning initiatives. The population and food problem is briefly described, as are the trends toward increasing urbanization, international migration, and the impact of the women's rights movement on fertility. This is followed by a summary of population trends in eight regions (Africa, Asia, Europe, Latin America, Caribbean Islands, Near East, North America, and Oceania) and in the specific countries within those regions.

All of this is extremely useful to the student or teacher who needs a quick summary of the population situation for a specific area or country. While the individual descriptions are fairly brief, they do provide the crucial numbers and a good summary of the social forces and political trends which are influencing patterns of growth or decline. A list of agencies involved in population issues is appended, along with a table of world demographic data, and a glossary of terms.

4) Population Geography and the Developing Countries, John I. Clarke (New York: Pergamon Press) 1971 (282pp.; $5.00).

Much of the population literature deals with the problems of the so-called "developing countries," and as Clarke points out, that is a term which means different things to different people. To some extent, this book attempts to clear up some of that misunderstanding and outlines the demographic trends in Latin America, Africa, Southwest Asia, South Asia, East Asia, and Southeast Asia.

While it is possible to make some generalizations about these countries, it is quite clear that their differences outweigh their similarities, and that great contrasts exist among them. Clarke is especially interested in the significance of political units in the geography of population, and he devotes quite a bit of attention to matters of boundaries, types of government, the influence of colonialism, and the emergence of nationalism. He is also concerned with trends in migration and urbanization and discusses the development of these trends and what they mean in terms of economic development of various countries and regions of the world.

Clarke concludes by noting that, in the foreseeable future, the great majority of the world's population will remain "within the ecumene or habitable area," so that the broad pattern of the population map will probably not change very much. He forsees a continuing stability in rural areas, despite the increase in urbanization, and suggests that "the problem of increasing the productivity and quality of life of the rural populations of developing countries presents a greater challenge than the problems of urban growth."

There are numerous maps and tables throughout the text, providing both a very helpful illustration of the concepts discussed and a good resource in themselves for use in classroom discussions. Despite the rather dry title, this is really a very stimulating book, full of good, basic information about the developing countries, along with a wealth of ideas about what various trends mean in terms of future pressures on the world economic system and the prospects for change in population demographics and geographic stability.

5) Concise Report on the World Population Situation in 1970-1975 and Its Long-Range Implications, Population Studies, No. 56, Department of Economic and Social Affairs, United Nations (New York: United Nations) 1974 (70pp.; $3.00; Sales No. E. 74. XLLL. 4).

Each year, the United Nations Statistical Office collects from governments around the world the latest available demographic data, which is then analyzed, in conjunction with other collected data, and the results published in a series of U.N. reports. This "concise" report is a condensation and analysis of data collected up to 1974, and it provides a very readable summary of major population trends that have occurred since the detailed analysis of censuses taken in and around 1970.

In particular, it is the first U.N. population report in which estimated population trends have had to be revised downward, a development due to the declining birthrates in the more developed countries which offsets the general decline in the death rates. This change is analyzed in some detail in the first section of the report, "The Current Population Situation," which provides a review of population size and growth, the vital rates, fertility, mortality, international migration, age structure, school enrollment, economic characteristics, and urbanization trends. In each of these areas, a brief descriptive summary is provided, and useful statistical tables and graphs are scattered throughout the text to illustrate the major developments.

Part Two, "Long-Range Implications of the Current Situation," provides an overview discussion of three areas: the time factor in affecting real population changes, future trends in population dynamics and population structure, and a preview of the United Nations long-range projections, with step-by-step discussion of such actions as birthrates, death rates, natural increase, etc. This provides not only some actual figures for projected population patterns, but a very interesting discussion of how such projections are determined and the kinds of variables which must be taken into account. An annex to the report contains country-by-country data on 1970 population and projected population size for the year 2000.

6) 1974 Report on the World Social Situation, United Nations Department of Economic and Social Affairs (New York: United Nations) 1975 (280pp.; $11.00; Sales No. E. 75. IV. 6).

Begun in 1952, the *World Social Situation* reports provide a unique overview of the social factors involved in global development. The focus has shifted somewhat over the years, and what was originally intended as a report directed to "universally recognized needs and problems," has become a report increasingly focused on questions relating to the quality and distribution of growth: "In developed and developing countries alike, more weight is being given to the non-monetary and non-quantitative aspects of growth and the well-being of the individual. As the quality of life is established as a primary development objective, the range and complexity of social concerns are dramatically enlarged. Many social, cultural, and political factors, such as the human environment or citizen participation in public decision-making, that earlier seemed to be at the margin of concern, have become central."

While much of the information about social conditions in many parts of the world is necessarily speculative, there is enough data available to enable illustrative situations to be described as a way of suggesting the similar, and often more serious, conditions which exist in countries where very little record keeping is done. An introductory overview is presented which, in itself, provides a very valuable and informative summary of the global social situation, including demographic dimensions, the environment, economic developments, employment, consumption, migration and immigration, patterns of income distribution, the status of various segments of the population by age and sex, and the international priorities for development.

In Part One, "Regional Developments," data and interpretative information is provided on each of eight regions: Latin America and the Caribbean, Africa, Eastern Asia and the Pacific, Western Asia, Eastern Europe and the USSR, Western Europe, North America, and Australia, Japan, and New Zealand. All of this is very useful for anyone seeking a good, brief summary description of how people live in various parts of the world, and what kinds of pressures are operating to influence their development. In Part Two, "Sectoral Developments," a global overview is provided of seven factors which influence quality of life measures: Population, Employment, Wage and Price Trends and Social Security, Food and Agriculture, Health, Education, Housing, Women, Youth, Social Welfare, Crime Prevention and Criminal Justice, Children Adolescents, and Environment.

All of this is very interesting and valuable information, especially when trying to understand the real meaning, in terms of human lives, of the population statistics that crop up everywhere; or in trying to comprehend the argument of the increasingly vocal spokesmen from the developing countries who maintain that population control is a corollary of social and economic development, and depends, not so much on an understanding of contracaptive practice as it does on an individual's perception of his or her quality of life.

7) World Population: 1975, Recent Demographic Estimates for the Countries and Regions of the World, U.S. Department of Commerce, Bureau of the Census (ISP-WP-75) Issued June 1976 (Washington: USGPO) 1976 (270pp.; $3.90).

This is strictly a reference book with very little in the way of descriptive or interpretative text designed to provide current demographic data on all countries of the world. It is a mix of fairly reliable figures from the developed countries, where census surveys are routinely taken, and very rough data, often only estimates, from the developing nations, many of whom have never taken a population survey. All countries with a population of at least 2,000 persons are represented in the data, although many of the smaller countries are entered only in "Benchmark Data," meaning that the figures listed for them represent approximations of what is thought to be the "true" state of affairs. Where that is the case, it is clearly indicated in the table. Despite that qualification, and it is one that applies to any report attempting to provide world population figures, this is an impressively comprehensive collection of data, all presented in a very straightforward, easy-to-read format that makes it accessible to readers with little or no background in statistics.

The general overview data is provided in the seven tables and figures which make up the "Data for the World and for Continents, by Type and Region" section which introduces the report. A brief text discussion accompanies the data, but for the most part it is self-explanatory. The bulk of the data is collected in the section "Data for Continents by Subregions and Countries" which is subdivided into five sections: Africa, Asia; Latin America; Northern America; Europe and USSR, and Oceania. An extensive list of references is provided at the end of the report as a guide to more detailed information on any particular area of interest. This should be quite useful in the classroom as a reference in which teachers and students alike can look up current population figures and find them presented in a very accessible format.

8) World Population Prospects, As Assessed in 1968, Population Studies No. 53, Department of Economic and Social Affairs, United Nations (New York: United Nations) 1973 (167pp.; $4.00; Sales No. 72. XIII.4).

Future population estimates are presented in this report for the major areas and regions of the world in the period 1965-2000, and for each country, in the period 1965-1985. Fully half of the report consists of interpretative text, designed to summarize the assumptions upon which the projections are based and the findings which are reported.

The result is a very good summary of the major trends affecting the world population growth, and a good, brief overview of what is happening in particular countries and regions, information that is normally quite difficult for the nonspecialist to assemble. Part Two, "Data and Methods," provides a discussion of the sources of data and the assumptions behind population estimates for each of five regions: Asia, Africa, Latin America, Melanesia-Polynesia-Micronesia, and the more developed regions, including Europe, USSR, North America, Australia and New Zealand, Japan, and temperate South America. Finally, in the annexes, a series of straightforward statistical tables present data on population by region and by country. They include everything from total population and annual rates of growth, through gross reproduction rates, crude birthrates, population by sex and five-year age groups, life expectancy at birth by country, and crude birth and death rates by country. In short, a very good overview of the world population situation is provided here, both in descriptive text and in easy-to-read tables, making this an excellent reference resource for the classroom teacher.

Population of the United States

1)Population and the American Future, The Report of the Commission on Population Growth and the American Future (New York: New American Library) 1972 (361pp.; $1.50).

Headed by John D. Rockefeller, III, the Commission on Population Growth and the American Future was established by Congress in response to the proposal that there should be an assessment of the impact of continued growth in our country. The results of their two-year study are set forth in this report's letter of transmittal:

"After two years of concentrated effort, we have concluded that, in the long run, no substantial benefits will result from further growth of the Nation's population, rather that the gradual stabilization of our population would contribute significantly to the Nation's ability to solve its problems. We have looked for, and have not found, any convincing economic argument for continued population growth. The health of our country does not depend on it, nor does the vitality of business nor the welfare of the average person."

Specifically, the commission was asked to examine the probable extent of population growth and internal migration in the United States between now and the end of the century, to assess the impact that population change will have upon government services, our economy, and our resources and environment, and to make recommendations on how the nation can best cope with that impact. In the course of exploring those areas, the commission touched on every facet of American population considerations, making this report an excellent, comprehensive introduction to the full range of population issues in this country.

Three overview chapters introduce the report: Perspective on Population, Population Growth, and Population Distribution. These are followed by six separate chapters, each addressed to a specific area and the impact that population growth has on it: The Economy (mostly an examination of economic growth and the quality of life), Resources and the Environment (an examination of minerals, energy, water, pollution, etc. in terms of increasing population pressures), Government (the costs of public services, the administration of justice, the effects of government programs on population distribution), Social Aspects (age structure, the family, population density and population size, racial and ethnic minorities), and Education (with a call for increased population education, education for parenthood, and sex education.

With this as background, the commission turns to an examination of "The Status of Children and Women." They give particular attention to the institutional pressures which help determine the range of options open to women, the kinds of child care alternatives which are becoming increasingly prevalent, and the basic issues in contraception, voluntary sterilization, abortion, and related methods of fertility control.

The likelihood of population stabilization is examined in Chapter 12, and the two chapters which follow are addressed to immigration and migration policies and their impact on population distribution. Finally, an overview of the state of the art of Population Statistics and Research is provided, and a set of recommendations is put forward for organizational changes, within the federal government, at the state level and within private agencies. Additional information is provided in the appendices.

2) Toward the End of Growth: Population in America; Charles F. Westoff and others (Englewood Cliffs, New Jersey: Prentice Hall) 1973 (177pp.; $2.45).

The transition from the "baby boom" to the "birth death" has been a dramatic one in the United States, leaving demographers to speculate if indeed this is evidence of a real turning point, or if in fact we are just resting before the next baby boom. Several noted population authorities have combined forces in this volume to try to answer that question, and in so doing they provide a very interesting analysis of current trends and their implications for the future.

Westoff introduces the volume with a brief essay which poses the central questions at issue in examining U.S. population trends and briefly outlines the structure of the essays which follow. Control of fertility is the first topic addressed. The five essays in this section examine everything from sex and contraception among unmarried teenagers, to changes in contraceptive practices, the increasing acceptance of sterilization and abortion, and the kinds of new contraceptive techniques that are currently being researched. Three essays on future population growth follow, one looking at recent trends and group differences in fertility, one setting the U.S. population growth in the context of international patterns, and one directed to an analysis of future growth of the American population.

Three areas where population growth will impact strongly are examined in the next section: the national economy, resources and the environment, and government and society. The final essay in this section is directed to the implications of perfect fertility control and the kinds of consequences that would have for women and the family. Finally, the topic of population growth policy is analyzed in two essays, one by Bernard Berelson on "Population Growth Policy in Developed Countries" and the

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other by Charles Westoff on "Recent Developments in Population Growth Policy in the United States."

It is extremely useful to have an analysis of this kind available, especially one that is written in so concise and readable a style. A thorough reading of this volume should be sufficient to orient even the most casual student of U.S. population problems to the basic issues currently under discussion, and it will likely stimulate interest in further reading and study.

3) Population Profiles, Everett Lee and others (Washington, Connecticut: Center for Information on America) 1971-1976 (Series of seventeen 8-page units; $8.00/set; study guide, $1.00) Available: Center for Information on America, Washington, Connecticut 06793.

Sponsored by the Council of State Social Studies specialists and produced by the Center for Information on America, a nonprofit and nonpartisan educational corporation, these seventeen population units and their companion study guide provide an excellent introduction to a wide range of population issues. Designed primarily for use by teachers at the high school and college levels, each unit is a self-contained discussion of a particular aspect of the population problem. Each is extremely readable and provides a single source compendium of up-to-date information, accompanied by easy-to-read graphs and tables which illustrate the basic statistics used within the text. It is assumed that these are introductory materials, and no prior exposure to population concepts is required in order to understand and use the materials presented in the series. Brief reading lists are included at the end of each unit, and a study guide is currently in preparation.

Topics included so far in the series are: Why Study Population?; The United States Among the Nations; The Vital Revolution: How Did We Get Where We Are Now?; The Health of Americans: Trends in Illness and Mortality; The Bearing of Children; Endless Movement: America as a Nation of Migrants; The Desertion of Our Countryside; Growth and Future Cities; The Nation's Minorities' Black America; Our Human Resources: The Wealth of the Nation; Education and Human Capacities; Population of the Future; The Development of the United States Census; Women in American Society: A Historical and Demographic Profile; The Elderly Population: Its Relationship to Society; and The Family.

4) The American People, E.J. Kahn, Jr. (New York: Weybright and Talley) 1973 (340pp.; $2.50).

Subtitled "The Findings of the 1970 Census," this book is the product of a journalist's attempt to sift through the voluminous data compiled by the Bureau of the Census and to translate all of those numbers into a readable summary of the American people as they exist, "in fact and not in fancy." It is a commendable undertaking, and Kahn actually succeeds very well. In fact, portions of this book appeared, in somewhat different form, in *The New Yorker* magazine. Obviously, there is a wealth of information here, enough to make even the most ardent trivia fancier a bit giddy.

At the outset, Kahn underscores the importance of the census taking that occurs every ten years and demonstrates the many ways in which the resultant numbers influences our lives. But he is also careful to point out the shortcomings of the census operation, noting in particular that it is a "middle-class" operation. The U.S. census clearly fails to reach and/or count some unknown number of poor and/or homeless Americans, many of them illegal aliens.

With those qualifying points established, Kahn moves to the real heart of his task — summarizing the major trends in U.S. population growth and shifts. We are told a good deal about the major migratory patterns — from south to north, from rural to urban locations, from metropolitan to suburban areas, and from almost anywhere to California. There is some discussion of the drop in birthrates and of the many social factors which make it so difficult to predict what that change will mean in terms of our future population growth. Kahn notes the increasing tendency for American women to marry later in life and to put off the birth of their first child, and he devotes a chapter to the discussion of what marriage patterns mean to the development of a population and to its social character. Data on employment and income are summarized to provide an overview of the American work force and its standard of living, and a lengthy discussion is provided of the whole area of America's ethnicity — immigration, migration, and racial mix.

In "The Race Gap," Kahn provides a particularly illuminating description of the difference between being black or white in this country and concludes that, while progress has been made, there is still a long way to go in equalizing the quality of life experienced by the two races. Similar disparities are drawn in chapters addressed to "The Opulent Society," "The Poverty People," "The Junior Citizens," and "The Senior Citizens."

All and all, it is a very interesting and enlightening book, and while one sometimes wishes that Kahn had been a bit more discriminating in selecting data to pass along to his readers, he has done, on the whole, a very good job, making this an excellent reference for the reader who wants a basic overview of the American population and the ways in which it is shifting and growing.

5) Population and America's Future, Joseph J. Spengler (San Francisco: W.H. Freeman and Co.) 1975 (260pp.; $3.95).

Designed as a supplementary reader for an introductory course in demography, this analysis of the 1970 census data provides an up-to-date, concise discussion of the population and economy of the United States, with particular emphasis on the relationship between population trends and resource management. Spengler notes at the outset that: "The purpose of this book is to locate the American economy in its historical and its changing world setting, to draw attention to major issues of demographic concern, and to indicate the policy implications and options at hand."

He begins with a discussion of the immediate determinants of population growth — death rates, birthrates, and net immigration into the United States. This is then set in the context of past and prospective population growth, the impact of population trends on the quality of the American environment, and the capacity of this country to draw on other environments. Changes in the density and geographical distribution of the population are reviewed and analyzed, along with the effects of age composition, urbanization, and the "objective costs" of population growth.

Finally, Spengler turns to an analysis of policy considerations and looks at the impact of population growth on diverse group interests, international relations, and public policy. The implications of the Report of the Commission on Population Growth and the American Future are analyzed in some detail, as are a variety of scenarios for dealing with population growth and the kinds of problems that future trends might produce. An extensive bibliography is appended, and several tables and graphs are scattered through the text. Despite the high density of information here, Spengler manages to make it all quite intelligible and readable.

6) The American Population Debate, Daniel Callahan, editor (New York: Doubleday) 1971 (380 pp.).

While most of us are quick to agree that the world has a population problem, a great many Americans are reluctant to admit that, in fact, the United States may have a population problem of its own. The debate referred to in the title of this book is precisely that: Does the U.S. have a population problem, and if it does, how serious a problem is it, and what can be done about it? The twenty-three articles collected here provide a fairly diverse response to the question, but for the most part, all of the authors agree that there is a problem. The major points of disagreement have to do with the severity of the problem and the possible ways by which to approach its solution.

The dimensions of the problem are described in Part I, "Does the United States have a Population Problem?" in discussions which range across everything from quality of life issues, consumption patterns in affluent countries, and the ethics and politics of ZPG, to the question of environmental capacity and issue of inter-global responsibilities. Several of these essays are reprinted from popular journals, such as *Saturday Review* and *Fortune*, and all of them are quite intelligible to a general reading audience. Part II, "What is the Solution to the Problem?," is a bit more mixed, having both popular level articles and a few technical papers addressed to specific solutions and their viability. For the most part, they deal with the problems of population control and fertility control, with a few authors examining the issue of population policy in terms of ethical considerations and political realities.

All of the articles are quite readable, and together they provided a good overview of American opinions and attitudes as to the current and future patterns of our own population's growth. While some of the data included here is now a bit dated, the same questions and issues remain before us, and the articles provide a very useful introduction to the main points of the American population debate.

7) Population and People, Edward G. Stockwell (Chicago: Quandrangle Books) 1968 (307pp.; $2.95).

Although now somewhat dated, this is still an excellent introduction to the study of the population of the United States. It is directed entirely to a general reading audience, and no prior knowledge of population statistics or demographics is assumed. In fact, most of the early part of the book is directed to defining the vocabulary of population study and translating some of the common statistical measures into easily understandable terms.

Beyond that, Stockwell does an excellent job of describing the more significant population trends in the United States, with particular attention to three "basic processes" of population change (mortality, fertility, migration) and to changes within the three "major demographic variables" (size, composition, distribution). Specific problems within each area are isolated for more detailed description, and a range of options that would address specific problems is provided. Mortality, fertility, and migration are each examined in separate chapters in terms, not only of overall trends, but with special attention to the causes and implications of differential birth,, death, and migration patterns that exist within the society. Similar treatment is given to each of the major demographic variables, and in the chapter on population distribution, Stockwell provides a very interesting analysis of the rapid urbanization of the American society in the postwar period. Finally, the concluding chapter provides an examination of the sociological significance of current (meaning pre-1970) demographic variables.

All and all, it is a very moderate, reasoned discussion, aimed at informing rather than converting the reader to any particular view of population dynamics. That in itself makes it a somewhat unusual and a valuable book. The fact that it is extremely well written and well organized is an added bonus.

8) Projections of the Population of the United States: 1975-2050, Series P-25, No. 601, Population Estimates and Projections, Current Population Reports (Washington: U.S. Department of Commerce) October 1975 (141pp.; $2.95).

For the most part, this is a collection of tables and graphs, with very little in the way of descriptive or interpretative text. It presents projections of the population of the United States by age and sex and of the components of population change (births, deaths, and net immigration). These projections are shown annually by race (white and black) from 1975 to 2000 and in less detail for the total population from 2000 to 2050. All three series start with the estimated July 1, 1974 population and assume a slight reduction in future mortality and an annual net immigration of 400,000 per year. They differ only in their assumptions about future fertility which is, in fact, the most difficult factor to estimate as it is subject to the most uncertainty.

An overall trend is clearly evident, however: ". . . the projection series presented in this report suggest that the population of the United States will continue to grow throughout the remainder of the twentieth century at rates which could fall below the current low rate and which are unlikely to reach the relatively high rate of the 1950's. The Series II projection, in which the assumed level of future fertility corresponds closely to that suggested by recent survey data on birth expectations, indicates that the total population of the United States would grow from 212 million in 1974 to 262 million in 2000, or by 24 percent. The annual growth rate would increase to 1.0 percent during the early 1980's and then would decline to 0.6 percent by the end of this century as it coveraged toward zero in the long run."

This volume, and a companion one which was recently released ("Estimates of the Population of the United States by Age, Sex, and Race: July 1, 1974 to 1976," Current Population Reports, Series P-25, No. 643, issued January 1977) should provide sufficient reference data for most classroom discussions or projects on the U.S. population. Supplementary resources might include *Statistical Abstracts of the U.S.* (annual; available from the U.S. Government Printing Office for about $8.00) and *Pocket Data Book – U.S.A., 1973* (also available from the USGPO - Stock #0324-00109 — for about $3.00), an almanac of population-related and other information derived in part from the 1970 census.

People on the Move (Urbanization, Migration, Immigration)

1) World Urbanization 1950-1970, Volume II: Analysis of Trends, Relationships and

Development, Population Monograph Series, No. 9, Kingsley Davis (Berkeley, California: Institute of International Studies) 1972 (319pp.; $3.00) Available: Publications Office, Institute of International Studies, Berkeley, California 94720.

Since its publication in 1972, this two-volume study has become one of the definitive references on the topic of world urbanization. Based on 1970 world census data, it provides brief but extremely well documented descriptions of the phenomenon of population shift from the rural to the urban areas. (There are numerous tables and figures throughout the text of Volume II, but the reader who wants a full accounting should also see Volume I, *Basic Data for Cities, Countries, and Regions*, Population Monograph Series No. 4; 318 pp.; $3.00).

Volume II is divided into nine sections: World Urbanization as a Subject of Study; The Urban Situation in the World as a Whole; Urbanization and the Growth of the World's Urban and Rural Population; Change in Distribution of the World's Population by Size of Place; Does Size Affect a City's Growth?; The Future Rise of World Urbanization; Regional Aspects of World Urbanization; Urbanization and Economic Level; and The Influence of Economic Level on Urban Change. This final section includes a very useful and informative summary in which Davis notes that: "The developed nations are losing rural population, whereas the less developed nations are gaining rural population. This means, I believe, that it is the force, or mass, of the cities that determines rural-urban-migration, not the force or mass of the rural areas. As the proportion of the population that is rural gets low, rural-urban migration and reclassification do not stop, but rather continue. As a consequence, they not only take off the natural increase of the rural population, but eat into that population itself. In the less developed countries . . . the cities are too small in relation to the rural hinterland to exercise enough pull to draw off all of the natural increase of the hinterland. Furthermore, the cities grow so fast by their own natural increase that they do not need, and cannot use, as much manpower as the rural areas could supply. As a consequence, the rural population grows rapidly, despite the fact that the cities are also growing rapidly . . . In the least urban countries of the world, the agricultural population is piling up on the land despite the rapid growth of towns and cities. The explosive expansion of towns and cities thus does not mean a commensurate explosion in urbanization, or in economic development. Overall population growth intervenes to makes urban expansion pay off relatively little in terms of per capita development. In this fact of general population growth lies the basic dilemma of the world today. Far from furthering urbanization, it interferes with it, and it prevents the gap between the advanced and the less advanced countries from being bridged."

Although it is a very scholarly reference, aimed at students and professionals in the field, it is extremely well written and should be accessible to the nonprofessional who has specific interest in this topic. It is most informative, quite readable, and provides an excellent single source summary of a very timely and influential topic in population study.

2) The City in the Third World, D.J. Dwyer, editor (New York: Barnes and Noble) 1974 (253pp.; $15.00).

This is a unique and extremely interesting book designed to "outline the major dimensions of the urbanization process in the developing countries and also to examine both the more pressing urban problems which have arisen and the directions of current thinking towards the solution of those problems." It is especially useful to the general reader because it provides both an historical perspective on the role of the city and a fascinating, contemporary look at what is happening with the distribution of populations in the developing nations. There are, for instance, essays addressed specifically to the trend toward urbanization in such diverse areas as North Africa, Thailand, India, Uganda, Salvador, and Bangkok, along with several generalized overviews of the kinds of problems that the new cities are posing — economic stresses, unemployment patterns, squatters, etc.

While the level of writing varies from article to article, for the most part all are quite intelligible to the general reader, and many of them are extremely well written and provide a very absorbing introduction to the complexities of urbanization. As Dwyer points out in his introduction to the volume, much of the future development towards a fully urbanized world will concern the Third World, where huge populations suggest that the coming urbanization will be more massive than any that has taken place

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previously: "This combination of 'pre-industrial fertility and post-industrial mortality' . . . has given the contemporary Third World city the greatest rate of natural increase ever found in cities. Yet rural-urban migration is also proceeding apace. The Third World today is the scene of the greatest movements of people in history, and through the waves of political refugees from war-torn areas usually make the headlines, it is a quieter, spontaneous movement of people from the countryside to the cities which constitutes the main stream. Paradoxically, the rate of urbanization and the current size of the major cities throughout the developing world seem to be more expressions of lack of national economic development than the results of it. Conditions in the cities, poor though they may be, nevertheless seem to be becoming increasingly preferred by the rural masses, and it can only be concluded that this largely reflects the abysmal lack of development in the countryside."

Numerous graphs and tables accompany the text and brief suggestions for additional reading are included at the end of each article.

3 The Urbanization of America: An Historical Anthology, Allen M. Walstein, editor (Boston: Houghton Mifflin Co.) 1970 (502pp.; $45.95).

A reader put together for the use of students in a Boston college course on American urban history, this anthology of thirty-seven articles on the urban condition is an excellent introduction to the phenomenon of urbanization in America.

It is divided into eight topic sections, beginning with "The Study of Urbanization," a collection of four essays which examine the role of cities in the historical development of the United States. The actual establishment and growth of urban centers is examined in a series of articles which trace the origin of American cities from the early needs for security, through the desire to establish religious and administrative units to the more complex economic factors that continue to dominate our patterns of migration and settlement. Urban services, such as water supply, transportation systems, and police networks, are discussed in terms of their increasing sophistication over time, and the intimate tie between industrialization and urbanization is described and examined.

Remaining sections provide discussion of the impact of urbanization, the rising concern for urban life, and the twentieth century movement toward metropolitanization. Finally, a series of seven essays review various contemporary urban problems: public need and political failure, the problems of a motor age, the challenge of suburbia, slums, housing and urban renewal, racial problems and civil disorder, and the general profile of contemporary urban conflict.

4) Cities: Their Origin, Growth, and Human Impact, A *Scientific American* Book, 1973 (267pp.; $6.00).

The twenty-seven *Scientific American* articles reprinted in this volume provide a comprehensive overview of the development of cities from ancient times to the present. It is intended, as Kingsley Davis notes in the introduction, "for all who are curious about how cities originated and evolved, and how they function and affect the people who inhabit them."

Part I, "The Earliest Cities," provides a look at the early stages of urbanization and the small, fragile first cities which rose and died in both the New and the Old World. The more permanent cities of the medieval period in Europe are examined in the second section, "Population, Health, and the City Environment," with particular emphasis on the problems that have plagued the evolution of Western industrial cities: The Black Death, rickets, lead poisoning, air pollution and public health, noise, and the control of the luminous environment.

The critical problems of transportation within the city are reserved for the third section, "Urban Transport and City Planning." The three articles included deal with actual and potential transportation systems, and with the planning for them that takes place in Western industrial societies. Cities of the developing world are the subject of Part IV, with special attention to their escalating problems due to their "faster, more gargantuan, more impoverished, and more chaotic" growth patterns. Finally, Part V is addressed to "Group Relations in Cities," and three articles examine the human problems that arise when people of disparate cultural backgrounds are crowded into urban environments.

All of these articles are accompanied by excellent illustrations, and numerous tables, charts and graphs are included to illuminate the text. A bibliography is appended and brief introductory essays accompany each of the five sections.

5) The Urbanization of the Earth, Jorge Arango (Boston: Beacon Press) 1970 (175pp.; $6.95).

This is a broad-based, very generalized overview of the phenomenon of urbanization written by an architect who believes strongly in the potential vitality and stimulation of city life, but who is painfully aware of the lack of planning and design which have led many of our existing urban areas to be no more than "an amorphous mass of gridiron tissue." He argues here for a very sophisticated "pan-urban" approach to city planning, one which would employ a modular concept approach "to direct the transformation of our suffocating cities and to direct their development into the pan-urban areas of the new industrialized civilization, in harmony with the laws of nature and the needs of men."

Much of Arango's vision for the city of the future comes from his thorough familiarity with the great cities of the past. The introductory sections, in which he describes some of these early urban settlements and the motivation that led to their establishment, provides a fascinating perspective on the role of cities in the evolution of civilization and the intimate link between the growth of cities and the shaping of population trends and patterns. He also offers some very interesting commentary on today's cities, both the good and the bad, and provides some useful insight into what has gone wrong with the city in America.

It is an extremely readable book, designed more to get the reader thinking about cities and how they function than to teach anything in detail, and it is especially interesting in the context of the movement of populations and the utilization of space to best meet the needs of the growing numbers of city dwellers.

6) A Pictorial History of Immigration, Oscar Handlin (New York: Crown Publishers) 1972 (344pp.; $12.50).

Winner of the Pulitzer Prize for History, Oscar Handlin in an internationally known Harvard historian specializing in American history and immigration. In this volume he has brought together over 1,000 rare photographs, engravings, drawings, maps, sketches and paintings to complement an extraordinary text in which he describes the cultural, social, political, and economic factors which have influenced the American immigration history from 1600 to the present. It is a beautiful book, full of fascinating details about the hardships of immigration, the tremendous contributions that immigrants have made to American history, and the difficulties of assimilating to a new land and culture.

Beginning with the pre-Columbian immigration of the American Indian across the Bering Strait, Handlin recounts the motivation, expectations, and experiences of the generations of immigrants who sought a better life in a new land. Four major waves of immigrants are described: From the Beginning to 1820 (Indians, British, French and Spanish Explorers, etc.); Peasants in a New World, 1820-1880 (Exodus from Ireland, the Germans, the Chinese, the Civil War and its Aftermath); The Great Migration, 1880-1930 (East European Jews, Italians, Slavic Peoples, Japanese, etc.); and The Refugees, 1930-Present, in which Handlin looks at the effects of war and totalitarianism on migration. Finally, in "Immigrant Contributions," he highlights the tremendous contributions that immigrants have made to American science, art, politics and culture in general. An extensive bibliography is appended.

7) Immigration and the American Tradition, Moses Rischin, editor (Indianapolis, Indiana: The Bobbs-Merrill Company) 1976 (456pp.; $7.50).

Part of the American Heritage Series created by Bobbs-Merrill "to provide the essential primary sources of the American experience, especially of American thought," this documentary anthology provides an excellent introduction to the literature of immigration. Authentic texts, carefully edited to maintain the character and flavor of the original, provide a comprehensive and scholarly overview of immigration from the days of Cotton Mather and William Bradford through all the many waves of immigrants that have brought 50 million people into this country since 1607. Since 35 million of those immigrants arrived between 1815 and 1920, a major portion of the book is focused on that period.

The influence of major political and social events, from the Revolutionary and Civil Wars through the two World Wars, and various periods of religious and political persecutions, are traced in the writings of their times, giving an authentic and impressive flavoring to the narrative. All of this is introduced by an excellent overview essay contributed by Rischin, one of the leading authorities on immigration, particularly that of the American Jew. In about fifty pages he manages to outline the highlights of the American immigration experience and to capture much of the flavor that has come to characterize the momentous shift of people from the old countries to the new.

An extremely useful bibliography is provided at the outset, directing the reader to a broad range of additional readings, many of them considered to be "classics" in the field. Rischin has done a superb job of selecting materials for inclusion here, making this a refreshing and enlightening change from the usual interpretative works that are so plentiful on the topic of immigration

8) World Migration in Modern Times, Global History Series, Franklin D. Scott, editor (Englewood Cliffs, New Jersey: Prentice-Hall) 1968 (177pp.; $2.45).

Designed to provide a global perspective on overriding trends and forces, the volumes in this Prentice-Hall Series deal with topics that span prehistoric times to the present and include anthropology, economics, political science, religion, and history. The scope of migration as a global reality is outlined in Scott's opening essay "Migration in the Dynamics of History." He briefly reviews the phenomenon of world migration from early times to the present and notes that: "Many factors — economic, geographic, technical, spiritual — are involved in human progress. The point is chiefly that migration is an activating factor. In the dynamics of historical development, progress stems from one of two roots: diffusion (or borrowing) is one; invention (or creativity) is the other. Migration facilitates borrowing and stimulates creativity."

The twenty-nine essays which comprise the remainder of the anthology support that contention impressively. In Part I, "European Emigration and American Immigration," twelve essays are directed to topics which include the peopling of the American colonies, the German and Irish Emigrations, religious persecution that inspired migration, the difficulties of adjusting to a new country, the peculiar Italian emigration of the late nineteenth century which was premised on the idea of eventual repatriation, and a brief examination of the fundamental factor of mobility as a characteristic of the American scene and the American people. Part II, "Latin America Migration," focuses on the influence of Europeans in Central and South America, especially in Brazil and Argentina, and the kinds of effects that trend has had on the economics, culture, and government of those countries. The five essays in Part III are directed to "African Migration," including the movement of slaves to North America, but mainly focuses on migration within the continent. In Part IV, "Asian Migration," four essays provide an overview of the movement of Asian people into India-Pakistan, Australia, and the United States.

Finally, in "Contemporary Migration," three authors examine "Mass Migration Then and Now," "Refugee Migration in the Twentieth Century," and the "Israeli Melting Pot." A concluding essay, "The Global Redistributing of Man" looks at the phenomenon of worldwide racial composition and patterns and its significance in terms of the economic development of various areas. An extensive bibliography and several maps are appended.

Fertility Control

1) Who Shall Live? Man's Control Over Birth and Death, A Report Prepared for the American Friends Service Committee (New York: Hill and Wang, Division of Farrar, Straus and Giroux) 1970 (144pp.; $2.65).

Prepared by a Quaker study group, this examination of the complex social, legal, and moral issues involved in population control provides an excellent introduction to the varied aspects of a single, crucial question: How can we maintain the size of the population so that every individual does not merely survive but can develop fully and participate in society in a satisfying and productive way? A number of seemingly separate questions are brought together here — abortion, contraception, increased life expectancy, genetic counseling, surgical transplants — all in an attempt to provide a thorough overview of the promise, limitations, and implications of population control initiatives.

The report begins with an examination of the role that medical advances have played in drastically lowering death rates, while birthrates, in the absence of corrected fertility control measures, have stayed at a steady level, thus leading to the current population increases. A very useful summary of the religious and ethical questions that have influenced fertility control measures is provided, much of it directed to an examination of the controversies that have accompanied the use of abortion as a birth control technique.

In "Man's Control Over Death," the authors provide a thorough and fascinating examination of recent medical advances and the social and ethical questions that have been raised by the development of heart transplants, respirators, etc. Both aspects of the problem, birth control and death control, are brought together in the discussion of the quality of life in which the authors examine the difficult questions of a child's right to be born versus its right to a decent life. All of this is presented in a thoughtful, sensitive discussion, designed to provide an objective, informative overview of the various issues that complicate the current birth control debate. There is one chapter, "Some Answers for Today," which provides a Quaker perspective on responses to these issues, but for the most part this is a reference which should be of use to all readers, regardless of their religious affiliation.

The text is extremely well written, and there is some very useful information in the appendices: Population Data, Effect on Population Growth of Birth, Death and Fertility Rates, Reproductive Processes and Fertility Control, Positions on Abortion, Abortion Laws, New Definitions of Death, and Laws Concerning the Donation of Tissues and Organs. The only limitation on the usefulness of the information is that abortion laws have changed rather drastically since the publication of this study in 1970. Nonetheless, it provides an excellent introduction to the whole population control issue, and one that should prove to be interesting and stimulating reading for a wide range of audiences.

2) Law, Politics, and Birth Control, C. Thomas Dienes (Urbana: University of Illinois Press) 1972 (374pp.; $15.00).

Dienes, an associate professor of law and government at American University, manages in this volume to cover over 100 years of development in the social and legal evolution of birth control in this country. He begins by examining the influence and activities of Anthony Comstock and his Puritan followers in the "Society for the Suppression of Vice." Their tremendous influence on birth control issues was unrivaled until the 1930's when Margaret Sanger took on the whole complex of judicial and legislative barriers in an attempt to estalish legitimate family planning services.

The role of the Catholic church in resisting the advances of the birth control movement is documented, and Dienes offers a telling and impressive chronicle of the power that the Church has wielded in determining public policy. He traces the gradual but steady progress toward the eradication of legal prohibitions against birth control, culminating in the tremendous progress made at the Federal level during the 1960's. Unfortunately, Dienes' chronicle ends there and the reader will have to look elsewhere for a summary of the renewed struggles in the 1970's that lead to the Supreme Court's decision on abortion.

The century of struggle that is documented here, however, is a crucial one in the history of the birth control movement in this country. Dienes has performed an extremely valuable service in providing such careful and lucid documentation of the events and opinions that colored those years.

3) Filling the Family Planning Gap, Bruce Stokes (Washington: Worldwatch Institute) May 1977 (55pp.; $2.00) Available: Worldwatch Institute, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036.

Recently published, this most recent Worldwatch Paper (#12) provides an invaluable overview of the status of family planning activities around the world and of the physical, emotional, and cultural factors which impact on family planning decisions. Noting from the outset that "More than half the world's couples go to bed at night without adequate protection against unplanned pregnancy," Stokes documents the effects of unwanted pregnancy on society and on the individual, making an impressive case that the real victims of this ignorance are the "disenfranchised" minorities — the poor, the young, the unmarried, and the rural. Stokes looks separately at each of these subpopulations, providing interesting profiles of their needs and of government efforts to meet them in various countries around the world.

In "A Smorgasbord of Services," he reviews the evolution of family planning as a science and as a business. Brief descriptions of various devices and techniques are provided, with particular attention focused on sterilization, abortion, the IUD, and the pill. The role of international organizations in promoting family planning programs, and the approaches taken by various governments at the national and local level are described, especially as they exist in Third World or developing countries. The discussion of the Chinese experience is particularly interesting as an example of apparently dramatic success with an essentially rural population, where local communities take on the responsibility of controlling population growth.

In "Filling the Gap," Stokes states the essential problem for all family planning programs: "If any lesson can learned from past experience, it is that inadequate health care, education, housing, nutrition, employment, and family planning are all aspects of the same affliction — whose symptoms cannot be treated in isolation. China's rapidly declining birth rate, for example, reflects a combination of radical social changes made for the overall benefit of the majority of the people. Despite administrative difficulties, the most successful development efforts and family planning programs have been those that addressed a whole range of problems comprehensively and simultaneously."

He then provides a critique of existing international aid programs and the kinds of political problems which affect their success, concluding that: "Each country must find its own path, designing programs that are sensitive to the cultural, political, and economic realities it faces. In some societies, this may mean improving the supply and choice of contraceptives; in others, it may entail working with local groups and using peer pressure to help change attitudes about family size. But the most successful programs will be those that link supply and motivation . . . The rhetoric has begun to turn to action as couples in both rich and poor countries relate their personal childbearing decisions to their nation's, their community's and their family's well-being."

4) From Now to Zero: Fertility, Contraception and Abortion in America, Leslie Aldridge Westoff and Charles F. Westoff (Boston: Little, Brown and Co.) 1971 (358pp.; 4.95).

Based on data derived from the 1965 National Fertility Study, this interpretative volume is designed to provide the general public with a better understanding of the current status of birth control in the United States. It is fairly broad-based, providing an examination both of reproductive behavior and of the history of the evolution of birth control techniques and family planning programs.

The Westoffs begin with a look at the human capacity to reproduce, contrasting known limits of fertility with actual birthrates for selected populations. Contraception, from primitive myths and techniques to modern methodologies, is examined in the next three chapters. The first provides a general overview, while the second and third focus on the birth control pill and abortion respectively. The views and role of the Catholic Church in influencing contraceptive programs and initiatives are then reviewed, with specific attention to the 1968 Papal encyclical, *Humanae Vitae* and the controversy that surrounded its release, especially in this country.

The focus then shifts to fertility, and the Westoffs provide an overview of fertility trends and differences among various populations and a brief discussion of the factors that influence fertility. A separate chapter is directed to the subject of black fertility and contraception, with special attention to the problem of unwanted fertility. Finally, family planning and the potential for achieving zero population growth are examined. There have, of course, been some dramatic changes in the decade since that Fertility study was taken and in the five years since this book was published, but this is still a good source of information on the mechanics of birth control and on the factors that have influenced reproductive behavior in the United States.

5) Birth Control in the Modern World, Elizabeth Draper (Baltimore, Maryland: Penguin Books) 1965 (333pp.; $1.25).

Subtitled "The Role of the Individual in Population Control," this study, although now somewhat dated, provides an examination of the physical, psychological, religious, social, economic and legal factors involved in birth control decisions. Written for a popular reading audience, it provides a thorough analysis of the major components of birth control policy and practice, all of it presented in clear, simple terms with illustrations as necessary.

Draper begins with "Why Control?," a review of the familiar basic demographic facts that describe the current increases in population growth around the world. In Part II, "Reproduction and Control," she loks at the physiology of reproduction (sex, sexuality, and eugenic selection; infertility and related

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disorders) and at methods of control, from early times to contemporary practice. The motivation for and impediments to the adoption of control measures are examined in the section "Society and the Individual," with particular attention to factors of education, religion, and legal provisions and restrictions. Finally, in "Practice and Prospects," Draper reviews the search for new methods and evaluation of effectiveness, the promotion, manufacture, and distribution of birth control devices, the population problem as it continues to manifest itself, and the prospects for the future.

While a lot has happened in the past decade, there has not been such extraordinary progress in the field of birth control so as to really date this book very much. It remains an excellent, comprehensive source on the topic of birth control, full of fascinating information about early mythologies and practices, along with some still very appropriate insight into what makes birth control programs work, and how cultural factors operate to limit the amount of knowledge that can be put into practice.

6) Population, Evolution, and Birth Control, second edition, Garrett Hardin, editor (San Francisco: W.H. Freeman and Co.) 1969 (386pp.; $4.50).

Subtitled "A Collage of Controversial Ideas," this collection of essays and excerpts from "historical classics" is introduced by Hardin with a quote from John Maynard Keynes: "A study of the history of opinion is a necessary preliminary to the emancipation of the mind." It is, in many ways, a strange patchwork of ideas that Hardin has assembled here, but it is an extremely interesting one, and it offers the reader a unique opportunity to explore a wide range of opinion about population policy, evolution, and birth control topics.

It is an especially useful mechanism in the case of birth control, as very little has been done to assemble the critical writings in that area. The excerpts in all three sections are necessarily brief, as Hardin has chosen to include a total of one hundred and twenty-three selections, but almost half of these are directed to the topic of birth control. Hardin begins the section with the well-known "be fruitful and multiply" biblical quote and a discussion of the Catholic interpretation of early Roman thought, and then progresses through everything from the impact of Anthony Comstock through the work of Margaret Sanger, various commentators on the abortion debate, and contributions from Kenneth Boulding, Kingsley Davis, and Paul Enrlich.

All and all, it is a fascinating collection of writings, and it conveys quite emphatically the social and ethical issues which have so complicated the issues of birth control. It is a collection which also reflects Hardin's sense of humor and his ear for the outrageous, so there is sufficient entertainment value here to lighten some of the more ponderous writings. And, of course, there is a good selection of Hardin's own writings, ranging from the well-known "Tragedy of the Commons" essay to a number of brief, useful overviews on abortion, resistance to birth control within the medical profession, the history of contraception, and "Interstellar Migration and the Population Problem."

7) The Population Crisis and Moral Responsibility, Philip Wogaman, editor (Washington, D.C.: Public Affairs Press) 1973 (340pp.; $7.50).

The thirty-four contributors to this volume include some of the nation's leading ethicists, theologians, and population experts. Their essays, directed to an exploration of the fundamental ethical issues which underlie the population debate, represent a broad cross section of Western thinking about the realities and magnitude of the population problem and the various responses which might be made to it. Protestant, Catholic, and Jewish religious traditions are explicitly represented here, but even within those particular faiths there is some divergence of opinion between writers.

In Part I, "The Moral Basis of Policy Objectives," the focus is on the question of "optimum population." The authors stress the importance of an ethical or value component in seeking to show why a particular growth rate (or decrease) is better than some other. For some it is a question of the tension between quantitative and qualitative factors in human existence, while others focus on questions of size as an index of power, the ultimate issues of man's relationship to nature, and the complex economic needs of man and society.

In Part II, "The Moral Responsibility of Government," the authors address the difficult questions of the propriety of governmental roles in relation to population matters. There is a heavy concentration of Catholic opinion in this section, but the essays range from one extreme to the other, with some regarding the intervention of the state in population matters as "demonic," while other view it as providing the greatest opportunity for man to shape his collective future. Part III, "Moral Analysis of Policy Proposals," is directed specifically to family planning initiatives, with particular attention to the ethics of coercive programs, the issue of public provision of family planning information and services, especially to unmarried people, including teenagers, the use of government incentives to lower birthrates, the questions of genetic control, and the complex problems associated with government provision for sterilization and abortion. Finally, in Part IV, "Moral Responsibility of Religious Communities," five essays are directed to an examination of the question: "Do religious institutions have any peculiar moral obligations toward changing population attitudes growing out of their own traditions?" Protestant, Catholic, and Jewish perspectives are represented with, again, a tremendous divergence of opinion.

What this volume provides, however, is an excellent summary of the complexities of trying to shape government population policy to a society with a broad mix of religious tradition and belief. It is a conflict which has revealed itself most sharply in terms of the continuing debate over abortion, but it is clear from the essays that the whole question of population control is one that causes tremendous upheaval in the religious community.

8) Health: The Family Planning Factor, Erik Eckholm and Kathleen Newland (Washington: Worldwatch Institute) January 1977 (30pp.; $2.00) Available: Worldwatch Institute, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036.

Increasingly, family planning decisions are becoming recognized as critical factors in determining the general health of a population. As this brief report makes clear, "Women who bear children too early or too late in life, women who bear too many children, and women who bear too close together put themselves in danger." Medical studies on the impact of childbearing patterns have focused on American and European populations, but the findings strongly suggest that "the failure to prevent high-risk pregnancies is one contributor for the appallingly high mortality rates of mothers and children among the world's poor."

Several dimensions of this problem are examined in this recent Worldwatch paper, including the significant risks associated with the problem of women who are "mothers too early, or mothers to late." The risks to both mother and infant increase dramatically if the woman is in her teens or over thirty-five, especially if it is her first child. The magnitude of this risk is carefully documented, and the authors argue that, for this population, the risks associated with various contraceptive methods are much less serious than those tied to pregnancy and childbirth.

In "Abortion: Law and Health," the authors review known data on the safety of abortions, especially in comparison to the risks of childbirth, and briefly review existing legal restrictions on abortion in various countries. Noting that few people consider abortion an ideal means of fertility control, the authors provide a brief survey of contraceptive safety, including summary data on a wide range of "birth control" options, with particular emphasis on the record of the birth control pill. Finally, in "Planning for Life," the dangers of the interaction between poverty and excessive fertility are restated, and a number of ways in which to reduce reproduction-related risks are suggested.

All of this is presented in very readable, descriptive terms, making this reference of interest and use to high school students, as well as to teachers and other interested students of population problems.

Consequences of Population Growth

1) Population, Resources, Environment, Paul R. Ehrlich and Anne H. Ehrlich (San Francisco: W.H. Freeman and Co.) 1970 (383pp.; $8.95) (Revised edition published 1972; 499pp.; $9.50).

Published in 1970, this quickly became a classic reference in population/environment literature. It is a remarkably broad-based discussion of the worldwide "overpopulation crisis," with special attention to the resulting demands on food, resources, and the environment in general. The introductory chapters provide a summary of the actual numbers of people within various populations, with their projected rates of growth, and contrasts this growing pressure against the limits of the earth in terms of space, heat, food, water, etc. This is all necessarily rather general, but it does provide the reader with a good sense of the dimensions of the conflict and the kinds of decisions which need to be made.

In the chapters which follow, the Ehrlichs provide a much more detailed and comprehensive examination of specific resource factors, from food production and ecosystem balance, to questions of optimum population size, birth control, and family planning initiatives. The more subtle problems of social, political, and economic impacts are treated in a later chapter which deals with education, medical services, the legal system, and transportation and communication. Most of this concentrates on the United States, and the major discussion of the international scene is left for a concluding chapter. There the problems and special needs of developing countries, the stress factors which could result in world war, and the kinds of international controls needed to mitigate those stresses are discussed.

An overall summary and set of recommendations is provided in the concluding chapter. The appendices provide much useful information on world demography, population estimates 1960-2000, the essential nutrients, an environmental case study (the fire ant program), an index of pesticides, a discussion of reproductive physiology and anatomy, and a fairly extensive biliography.

2) Twenty-Two Dimensions of the Population Problem Lester R. Brown, Patricia L. McGrath, and Bruce Stokes (Washington: Worldwatch Institute) March 1976 (83pp.; $2.00) Available: Worldwatch Institute, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036.

Since Malthus, the study of the consequences of population growth has traditionally been on the interrelationship between population and food production. To some extent this has been a reflection of the tendency for demographers, the primary population researchers, to seek quantifiable areas for study. It has long been known, however, that population growth has an impact on almost every aspect of our lives, and in this brief report, an overview is provided of the relationship between population growth and twenty-two of those "nontraditional" areas.

At the outset, the authors noted that: "Some of the facets of the population problem explored in this monograph are economic, some are social, some are ecological, and some are political, but nearly all have one thing in common: they can be expected to get much worse before they get better. Collectively, they portray the stresses and strains associated with continued population growth in a world already inhabited by four billion people."

The twenty-two topics examined are: Literacy, Ocean Fisheries, Natural Recreation Areas, Pollution, Inflation, Environmental Illnesses, Hunger, Housing, Climate Change, Overgrazing, Crowding, Income, Urbanization, Deforestation, Political Conflict, Minerals, Health Services, Water, Unemployment, Endangered Species, Energy, and Individual Freedom.

It is a fascinating and thought provoking survey of the critical role which population growth holds in affecting the quality of life for all of us. Discussions of the individual topics are necessarily brief, but the major points are well documented and clearly explained, making this an extremely informative reference, suitable for a variety of audiences, from high school students, to teachers and interested general readers.

3) Population, Environment and Society, W.D. Borrie, (New York: Oxford University Press) 1973 (106pp.; $5.00).

For the serious student, this publication of Borrie's 1972 Sir Douglas Robb lectures at the University of Auckland is a valuable and fascinating reference. A professional demographer with a very solid reputation, Borrie offers an examination of four critical population topics: The Growth of Human Populations; Historical Perspectives; The Demography of Affluence; The Demographic Transition and the Developing Countries; and The Prospects for Zero Growth.

Borrie ranges across the whole spectrum of population issues, providing an impressive and thought provoking picture of the complexities which characterize the study of world population patterns. The startling changes that can take place within populations in a short period of time, the tremendous differences between demographic transitions in developed and developing nations, and the inevitable lead times (world population will double by the end of the century no matter how we try to avert that consequence) are all addressed here with an impressive conciseness and authority. Despite the inevitable "gloom and doom" overtones, however, Borrie is essentially an optimist, committed to the belief that mankind is still capable of making rational decisions. He concludes his lectures with the positive assertion that "it is time for realistic action, not morbid despair or unreal pancreas of hope," notes that even Malthus, in his later works, turned away from the gloomy pessimism of his early papers and saw some hope in man's ability to shape his own future.

There is a tremendous wealth of information within these lectures, each of them illustrated with useful graphs and tables, and it is well worth the extra effort needed to follow Borrie's explication of population theory. While not aimed at the general reader, the material here is well within the grasp of undergraduates and concerned layman, and will provide them with an excellent overview of fundamental population issues.

4) Beyond Malthus: Population and Power, Neil W. Chamberlain (New York: Basic Books) 1970 (214pp.; $8.95).

This is a unique and fascinating book, directed not to the impact of population growth on material resources, but rather to the ways in which population growth can affect social institutions and relationships through an increase in its density, or a shift in its composition. Chamberlain's interest is in the pressures that people exert on people, and the ways in which those pressures tend to redistribute power within societies and between societies.

He begins by reviewing the Malthusian debate, noting that, like Malthus, he is concerned with "disproportions in rate of change, not, however, between numbers of people and nature yield, but between numbers of people and other people, and between numbers of people and social institutions." Chapter 2, "Population and the Distribution of Privilege and Authority," provides a brief outline of the social institutions and social phenomenon that are of interest to Chamberlain: the distribution of the social advantage, nationalism as a basis for social organization, the structure of authority, and the complexities of containing pressures for social change. He then explores the potential effects of population change on the structure of society, including the rise of new classes and new leaders, the role of youth, and the evolution of the masses. It is, all and all, an impressive argument for the critical role which population change plays in affecting social change.

Succeeding chapters explore the role of population change in the technological development of a society, the implications of urbanization (especially in encouraging specialization of activity), and the pressures which population change exerts on government structure, organizations, the distribution of wealth and power, and the pursuit of international relations. It is stimulating reading and provides, at minimum, an impressive rationale for the importance of population study as a discipline.

5) The Population Problem, Arthur McCormack (New York: Thomas Y. Crowell Co.) 1970 (264pp.; $8.95).

There are three primary issues under question in this popularized overview of the population problem: first, what is the current population situation, and what are the implications for the future; second, can the resources of the world, including food, keep pace with this situation; and third, what part will population policy decisions have in affecting the future rate of population growth?

McCormack begins by summarizing the population data from a variety of reputable sources, all of it predating the slowing trends that have been observed in the past decade. McCormack is particularly alarmed by the growth rates in the developing countries and concludes that "in certain areas of the world a population-restriction policy is urgently needed as a concomitant of positive efforts for agricultural and general economic advance." He then examines the pressing hunger problem, with particular emphasis on the problems of food production in the less developed countries. Varied schemes and technologies for increasing the food supply are reviewed, with special attention to four approaches: increase in the amount of land under cultivation; improvement in conventional methods of production on land already in cultivation; longer term possibilities and unconventional sources of food; and population policies needed, especially in the developed countries. On the whole, it is an optimistic summation, and McCormack views the kinds of economic development impacts which continued population growth will bring, particularly in the developing world, as more threatening than food shortages.

A rather extensive discussion is provided of economic underdevelopment and the implications of industrialization for both the economic and the social development of the population. This theme is pursued in the following chapter, which is addressed to the effects of population growth on labor, housing, and education; the standard measures of quality of life indices. Finally, McCormack examines the issue of population control, providing brief summaries of the various programs underway around the world and adding a word of warning that such programs should not be used simply to disguise the need for more comprehensive social reform in many parts of the world. He argues strongly that family planning programs "must be part of integrated population policies and programs that include study and research into the whole population situation in the context of family life and family welfare."

He provides a review of several World Bank initiatives and concludes with the optimistic statement: "The population explosion, as part of the wider issues of world cooperation for development, is seen not as a menace but as a challenge, not as a phenomenon necessarily leading to catastrophe, but as a manageable problem, if the spirit, the goodwill, and the resources necessary to its solution are forthcoming."

6) The Economic History of World Population, Carlo M. Cipolla (Baltimore, Maryland: Penguin Books) 1974 (154pp.; $2.50).

Originally published in 1962, this splendid little book is now in its sixth edition, having gone through eight printings. It is unusual, both in its scope and in the style in which it is written. Designed to provide a global view of the demographic and economic development of mankind, it is written in a comfortable, unassuming manner, with a surprisingly good selection of facts and data disguised in a pleasant, popularized text.

Cipolla begins with a brief sketch of man's arrival on earth and the kinds of hunting and gathering societies into which he organized. He then traces the two major revolutions in man's history — the agricultural revolution that took place somewhere back in the period of the ninth and the seventh millennium B.C. and the industrial revolution that began in England late in the eighteenth century and which is only now reaching some parts of the world. Cipolla uses energy as a theme to emphasize the complex needs and demands of an industrialized society. He emphasizes the role that the discovery of the various converters, from windmills to the steam engine, has played in shaping the economic and social development of various parts of the world. The different patterns of production and consumption in an agricultural versus an industrialized society are examined, and Cipolla concludes that, while many countries still have an economic and social system based on the rules of an agricultural society, they are being accelerated into the lifestyle patterns of industrialized nations by the various aid and assistance programs being exported by the developed nations.

The remainder of Cipolla's discussion focuses on the inherent conflicts that complicate the too rapid transition of an agricultural society into an industrialized one. In particular, he is concerned that the population demographics, especially the birth and death rate patterns, of an agricultural society cannot be adjusted rapidly enough to enable the population pressures to be kept in balance with the technological advances that characterized an industrialized society. In other words, with an "agricultural" birth rate and an "industrial" death rate, the demographic explosion is bound to assume alarming proportions. Noting that it is then easy to conclude that all the underdeveloped countries need do is to bring down their birth rates to a manageable level, Cipolla carefully documents the complex social factors which make the reduction of birthrates an extremely difficult variable to change.

All of this raises the question of how many people can be supported by human societies, and Cipolla provides an interesting analysis of the question based on evidence from man's biological past and the various quantity versus quality arguments that have been raised throughout history. It is a fascinating discussion of the social and economic implications of population growth, and while Cipolla offers no solutions to the dilemma, he does provide a great deal of food for thought.

7) Readings in Human Population Ecology, Wayne H.Davis, editor (Englewood Cliffs, New Jersey: Prentice-Hall) 1971 (251pp.; $6.50).

Most of the articles included here are reprints from scientific journals that appeared in the late 1960's. While they cover a fairly broad range of topics, they focus for the most part on the social and economic consequences of increasing population growth.

A number of articles in the first section, "The Problem," provide very useful summaries of important concepts, such as the statistical basis for population projections, the technological means available for population control, the concept of zero population growth, the demands that population growth places on food supplies, and the Catholic Church's position on birth control. There are papers by Garrett Hardin ("The Tragedy of the Commons"), Paul Ehrlich, Lester Brown, and other well-known experts on the population situation included in this section. Both sides of the population/resources argument are presented in the section which follows, "Economics and Population Growth," with authors arguing, on the one hand that birth control is necessary for economic development and to prevent famine and other resources shortages, and on the other that the problems of vanishing resources is really a myth perpetrated by alarmists who do not realize that technology will save us by extending our resource base through more efficient utilization. In the final section, "In Search of a Solution," seven papers are reprinted, each dealing with some aspect of birth control policy, technology, or specific methodology, such as abortion.

While this reader does not offer sufficient background information for an in-depth study of population issues, it is a good source of stimulating readings on which to base a classroom discussion of the social and economic issues involved in population decisions.

8) The Food and People Dilemma, George Borgstrom (North Scituate, Massachusetts: Duxbury Press) 1973 (140pp.; $6.95).

At the heart of the Malthusian dilemma is the contention that, while populations grow geometrically, food supply can only increase arithmetically, thus assuring that there eventually will be more people than the world's food supply can feed. The projected gap between food supply and population growth has long been a favorite topic in the "doomsday" literature. This discussion, written by one of the world's foremost authorities on world food resources and their utilization, provides an excellent critique of the misconceptions that have dominated thinking in this area and is a useful summary of the major points that will more accurately determine the adequacy of the food supply.

Borgstrom explores the interactions among agriculture and food processing, transportation, industry, urbanization, and energy consumption. It is a study aimed, not only at elucidating the complexity of the food and people issue, but also at bringing into clear focus its historical and biological dimensions. As he notes in the preface: "We must also put an end to the prevalent habit of narrowing the field of perception, either by putting on blinders or resorting to verbal tranquilizers. The food and people issue is of such a paramount significance to man's future that we not only must boldly remedy our handling of these matters but also, and perhaps more importantly, submit our thinking to drastic revisions. This study constitutes an effort to open up new vistas by moving the debate out of dead center and into constructive, progressive action."

Much of the focus of Borgstrom's discussion is on the "great European migration" and the changes in the perception of food supply dynamics that the shift to urban living created. He notes the global interdependencies that link food consumption in the developed nations with the land erosion, deforestation, and poverty in the emerging nations which have depleted their lands trying to meet the world's demand for such products as bananas and coffee.

Finally, he identifies those areas where changes must be made if catastrophe is to be averted: "On the whole, food and people can only be brought into reasonable balance through coordinated efforts. A strategy, long overdue, needs to be formulated. Several action spheres need to be harnessed together, but primarily the following six: (1) food production, (2) population control, (3) better storage and utilization, both for food and feed, (4) nutritional requirements, (5) disease control, and (6) resource appraisal (soil, water, energy). Each measure taken needs to be coordinated or related to all the others, something which only has been done on rare occasions. There is considerable reason to maintain that sight of the overall goal — food for all — was lost in the struggle to achieve more immediate "advantages."

Growth Versus No Growth

1) The Population Bomb, revised edition, Paul R. Ehrlich (New York: Ballantine Books) 1971 (201pp.; $.95).

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Originally published in 1968, this book is often credited with popularizing the concept of zero population growth (ZPG) in this country. Ehrlich, a Professor of Biology at Stanford University, views overpopulation as the dominant problem in the world today. He views the future bleakly, with the prospect of mass famine as an inevitability for the 1980's, no matter what crash programs we embark upon now. Even with improved agricultural technology and various schemes to "stretch" the carrying capacity of the earth, Ehrlich foresees disaster unless these programs are accompanied by "determined and successful efforts at population control." He states in the prologue: "Our position requires that we take immediate action at home and promote effective action worldwide. We must have population control at home, hopefully through changes in our value system, but by compulsion if voluntary methods fail." This is the underlying theme throughout the discussion here, and he is quite adamant in pushing population control as the only real solution to our global problems.

Ehrlich begins by describing "The Problem," with particular attention to the concept of doubling times and the limitations of the earth's food production capacities. In "The Ends of the Road" he describes various scenarios, all of them premised on the "death rate solution," to describe the consequences of contained world population growth. He then looks at "What is Being Done," from family planning programs to efforts to improve agricultural productivity and the various schemes being proposed as ways in which to protect our environment.

Ehrlich's personal priority list is set forth in "What Needs to Be Done," a chapter whose premise is that: "We must rapidly bring the world population under control, reducing the growth rate to zero and eventually making it go negative . . ." Ehrlich views the United States as the key to the whole business and stresses the need for aggressive population control policies at home, through both legislation and education, and the adoption of the "triage" philosophy in determining recipients of our international financial aid. In "What Can You Do?" he recommends that people join and support such groups as Zero Population Growth (ZPG), write letters to legislators, organize action groups, etc.

Finally, in "What If I'm Wrong," Ehrlich concludes: "In other words, play it safe. If I'm right, we will save the world. If I'm wrong, people will still be better fed, better housed, and happier, thanks to our efforts." Needless to say, there has been much controversy surrounding this book, but it does provide an excellent vehicle for introducing a classroom discussion of the growth versus no growth question in general, and specifically the matter of Zero Population Growth.

2) The Doomsday Syndrome, John Maddox (New York: McGraw-Hill Book Co.) 1972 (293pp.; $2.95).

One of the more vociferous rebuttals to the Paul Ehrlich school of ecology, this book argues that prosperity is possible "if we devote our energies to solving our problems, rather than wasting them away by scaring people and convincing ourselves that the human race is doomed." Needless to say, it has inspired a lot of controversy, and like *The Population Bomb,* is a book which people tend to respond to more with their emotions than with their intellect. Actually, Maddox takes on an even broader range of problems than does Ehrlich and offers very brief but optimistic overviews, not only of the population situation, but of the world food supply, natural resources, ecology, and pollution problems.

Maddox's underlying theme throughout the discussion of these topics is enunciated in the preface: "This is not a scholarly work but a complaint. In the past decade, since the publication of Miss Rachel Carson's *Silent Spring*; the people of North America, and to a lesser extent, Western Europe, have been assailed by prophets of calamity. To some, population growth is the most immediate threat. Others make more of pollution of particular kinds, the risk that the world will run out of food or natural resources or even the possibility that economic growth and the prosperity it brings spell danger for the human race . . . But, although these prophecies are founded in science, they are at best pseudo-science. Their most common error is to suppose that the worst will always happen. And, to the extent that they are based on assumptions as to how people will behave, they ignore the ways in which social institutions and human aspirations can conspire to solve the most daunting problems."

It is, obviously, a very refreshing and uplifting approach to take, and the temptation to be caught up in Maddox's enthusiasm and optimism is a strong one. It should, in fact, make for a very interesting educational experience to read these books back to back — an activity that a high school ecology class might well take on as a way of approaching the growth versus no growth debate.

3) Zero Growth, Alfred Sauvy (New York: Paeger Publishers) 1975 (266 pp.; $10.00).

This is a book that is certain to antagonize a lot of people. Written by a very well-known and respected authority on population issues, it is designed to point out the flaws in the standard arguments for the viability of Zero Population Growth. In fact, Sauvy does a good job of outlining most of the primary objections to the zero population growth (ZPG) and zero economic growth (ZEG) philosophies, and he also provides an interesting introduction to the international politics of population control.

From the outset, Sauvy states that his intent is to educate — to "present the reader with an objective view." In keeping with that aim, he proceeds quite logically to examine in turn the historical evolution of the ZPG philosophy, the meaning of population data and estimates, the relationship of natural resources and energy to population growth, the projected deterioration of nature, and possible action that could be taken in response to population pressures. Basically, Sauvy wants to educate the reader about the pitfalls of the no-growth arguments and the uselessness of trying to press population control onto an uneducated population.

To do this, he first reviews very briefly the long line of philosophers, from Plato to Lenin, who have offered various solutions to the problem of "too many people." He then looks at the mathematics of population growth, population control, and population versus food, all necessarily in a rather cursory way, but sufficient to support his point that: "An advancing population can stop no more easily than an automobile rolling down a steep hill. The speed of the car will not immediately drop to zero unless it runs into a tree or wall. In order to slow it down and to prevent damage of any kind, one must take its inertia into account."

Sauvy notes that, put crudely, there are two schools of thought about population control, those calling for the attainment of ZPG through various fertility control schemes (a school he describes as being led by the "rich nations," America, and Sweden) and those who see economic development as the answer to a more gradual and natural lowering of birthrates (a position put forward by several so-called "developing nations" at Bucharest). Sauvy clearly sees the latter approach as the more realistic of the two and credits scientific and technological advances with the capacity to give us enough time to pursue that course. In particular, he is markedly unimpressed by the data and warnings of the *Limits to Growth* type analyses of resource depletion and dismisses their findings quite thoroughly.

Finally, he argues against any attempts to use international coercion as a way to get selected nations to reduce their populations. Instead, the answer may more appropriately lie in educational programs aimed at women to raise their expectations and ambitions. He points to the difficulties of trying to attack what is essentially the instinct of self-preservation: "ZPG stems more from mysticism than from reflection . . . There is some irony in seeing old and aging countries making abortion generally available when the young populations, destined to double their numbers in one generation, refuse to allow it." And he dismisses rather cavalierly the problems of environmental damage from overpopulation: "There is no deterioration for which an antidote cannot be found, even if it is only abstention in an agreed respect. The principle obstacle is the cost and consequently the socioeconomic, and therefore, political difficulties."

In short, Sauvy manages to step on a lot of sensibilities, but it makes for interesting and informative reading, and it certainly provides a tremendous amount of material to fuel a spirited growth versus no growth debate.

4) The No-Growth Society, edited by Macur Olson and Hans H. Landsberg (New York: W.W. Norton and Co.) 1973 (259pp.; $).

This is an impressive but difficult book designed to rebut much of the popular misconception about two scenarios for the future: Zero Population Growth (ZPG) and Zero Economic Growth (ZEG). Written by a distinguished panel of scientists, economists, and planners, it attempts to offer constructive alternatives to ZPG and ZEG, first by explaining why it is that neither of those scenarios, in their popular or "political" sense, are attainable or desirable, and then by extrapolating from those philosophies the kinds of changes that their enthusiasts want and attempting to identify realizable ways in which some of those goals might in fact be met.

The intent, throughout all the fourteen essays collected here, is to identify ways in which development might be channeled for the improvement rather than the destruction of the environment. In addressing this task, the authors manage to touch on almost all of the crucial issues in the growth versus no growth debate. They are complex issues, involving a rather sophisticated understanding of economics and population demographics, and to some extent the contributors here — they include E.J. Mishan, a leading anti-growth proponent, Norman Ryder, an incisive critic of the demographics of ZPG, Kenneth Boulding, the well-known and highly respected economist, and Lester Brown, a stimulating critic of various development problems — are to some extent writing to one another.

While this is definitely not a book designed to provide an introduction to this topic for the novice, it is a useful reference for the interested and reasonably well-read nonspecialist seeking a scholarly and broad-based explanation of the major topics in the growth versus no growth debate. (The essays collected here originally appeared in *Daedalus,* Volume 102 (4), Fall 1973 (Boston: American Academy of Arts and Sciences).

5) On Growth: The Crisis of Exploding Population and Resource Depletion, Willem L. Oltmans, editor (New York: G.P. Putnam's Sons) 1974 (493pp.; $4.45).

This is a huge smorgasbord of a book, offering the reader a wide variety of viewpoints on everything from the impact of television on today's youth to the pros and cons of the Marxist and capitalist economies. Somehow, it all ties into the topic of growth, but often in a very surprising and nontraditional way. This is partially explained by the fact that the contributors to this volume are for the most part surprising and unconventional people.

Oltmans points out in his preface: "I do not intend this book to be a scholarly, unreadable heap of scientific language. As I found that most scientists possess a treasure chest of thoughts and opinions about the problematique of our day, I have collected some of these, as a contribution to the worldwide discussion now underway about the finiteness of all things around us, as a further contribution to a rising consciousness that generations of today or tomorrow have no right whatsoever to leave the children of tomorrow or the days after tomorrow one huge garbage pile." And it is in that open-ended spirit that he approaches his subjects, all of whom agreed to be interviewed in the interest of broadening and deepening the international debate on the problems of growth.

Oltmans has reached a very impressive collection of people, from U Thant, Margaret Mead, and B.F. Skinner, through Paolo Soleri, Marshall McLuhan, Paul Ehrlich, and Claude Levi-Strauss to Ivan Illich, Herman Kahn, and Herbert Marcuse — just to mention a few. It is, at times, a mind boggling trip with just enough to wet the reader's appetite before Oltmans takes out after an entirely different point of view or switches to what is really little more than a glimpse into a fascinating personality. At any rate, somehow it all seems to work, and it is hard to resist the momentum, the color, and the excitement.

While this will not clarify any of the fine points in the growth debate, it will alert the reader to the tremendous range of thought and opinion that has been brought to bear on the problem. It should also stimulate further reading, if only to discover what else someone might have said had not Oltmans cut him off in an effort to catch the next personality on his list. It is clear, anyhow, that Oltmans has succeeded in his main mission — no one will mistake this for a scholarly book. Given the usual weighty tones that have been written on the topic of growth, that is one of the best things to be said about it.

6) Mankind at the Turning Point, Mihajlo Mesarovic and Eduard Pestel (New York: New American Library) 1976 (208pp.; $1.95).

Subtitled "The Second Report to the Club of Rome," this is the successor to *The Limits to Growth* (Donella and Dennis Meadows, Universe Books, 1972), the computer modeling study which concluded that: "The earth's interlocking resources — the global system of nature in which we all live — probably cannot support present rates of economic and population growth much beyond the year 2100, if that long, even with advanced technology."

While critical of the conclusions and methodology of that earlier report, this follow-up study nonetheless presents a rather grim forecast if major changes are not made in our current system. Specifically, the authors recommend annual investments of some 250 billion by industrialized nations to help developing nations become self-sufficient, the adoption of controlled "organic" economic growth, as opposed to both the current exponential growth and the Meadows' recommendation for halting economic growth completely, and an end to the "preposterous waste" of material resources by industrialized nations. Again, all of this is premised on computer-based projections of long-range world developments, and there is plenty of data and numerous diagrams and graphs to support the authors' contentions. That approach, in itself, is a bit puzzling, as this study, like its predecessor, is directed to the general reading pulic, with all the hoopla that traditionally surrounds the release of a new trade book. It is hardly an audience equipped to handle, yet alone criticize, the methodology of the study, however, and one is left to take the authors' conclusions on faith and hope that their peers will see fit to offer criticism that is at least equally accessible.

To some extent, that has been done (see, for instance, *The No-Growth Society*, Olson and Landsberg), but it is still a rather frustrating reading experience for its intended audience to take on. Nonetheless, it is an extremely interesting book; it does raise some rather crucial questions about the future we are now embarked upon, and it is a work, like its predecessor, which is frequently cited for praise or criticism in the literature of the growth verses no growth debate. In short, both Club of Rome reports have become basic background reading for the study of the growth question, making them "must" additions to any bibliography on this topic.

7) The Next 200 Years: A Scenario for America and the World, Herman Kahn (New York: William Morrow and Co.) 1976 (241pp.; $3.95).

Herman Kahn, founder and director of the Hudson Institute, is that rare soul — a futurist with a deep-rooted sense of optimism. He contends that the world is now at a crucial turning point in history, analogous to the Agricultural Revolution and the Industrial Revolution, and that we are about to pass through "a superindustrial period and into a postindustrial era of abundance and fulfillment."

The assumptions, analyses, and conclusions that support this contention are the subject of this brief, nontechnical report, a study in which Kahn and his colleagues manage to touch on everything from population, energy, mineral resources and food to the general quality of the environment. Their perspective on the future is made clear from the outset: "In our view, the application of a modicum of intelligence and good management in dealing with current problems can enable economic growth to continue for a considerable period of time, to the benefit, rather than the detriment, of mankind. We argue that without such growth the disparities among the nations so regretted today would probably never be overcome, that 'no growth' would consign the poor to an indefinite poverty and increase the present tensions between the 'haves' and the 'have-nots.' Nevertheless, we do not expect economic growth to continue indefinitely; instead, its recent exponential rate will probably slow gradually to a low or zero rate. Our differences with those who advocate limits to growth deals with the likelihood of this change than with the reasons for it."

While most of the book reflects this sort of pragmatic optimism, there are some areas, in particular the income gap between nations and long-term environmental quality, where even Kahn foresees continuing difficulties, and he admits that "various degrees of catastrophe are still possible even in the face of man's best efforts." But the basic assumption here, and the one that colors Kahn's predictions most clearly, is his belief that "projecting a persuasive image of a desirable and practical future is extremely important to high morale, to dynamism, to consensus and in general to help the wheels of society turn smoothly." It is not surprising, then, that Kahn is extremely critical of the limits to growth perspective, viewing it as self-fulfilling prophecy likely to impose unnecessary trauma and suffering on those who accept its predictions. The important task ahead, he asserts, is to find the appropriate means of dealing with the problems of the present and immediate future. He concludes with a step-by-step scenario for managing everything from population and economic growth to energy, raw materials, food, pollution, and thermonuclear war.

It is, in short, a book that will surely raise the decibel level in any growth versus no growth debate, and it should easily stir a strong response from the most casual reader.

Population Policies: Strategies for the Future

1) In the Human Interest, Lester R. Brown (New York: W.W. Norton and Co.) 1974 (190pp.; $3.45).

Subtitled "A Strategy to Stabilize World Population," this is essentially an argument for a concerted effort by the international community to satisfy basic social needs because it is in the human interest of everyone, whether in rich or poor countries. Brown views uncontrolled human fertility as the single most important threat to future well-being and security, but he also emphasizes the need to curtail the consumption patterns of the "super-affluent" who are compounding the problem by consuming a disproportionate share of the world's resources. Global ecological and social stresses, coupled with increasing resource scarcities, are problems which Brown would have us attack on two fronts: through the extension of systematic family planning services to everyone around the world; and by a concerted effort to meet certain basic social needs which, history shows, are instrumental in lowering the birthrates.

A very good summary of the demographic backdrop to the current crisis is provided in Brown's opening chapter in which he examines the historical development of population growth, the arithmetic of exponential growth, the structure of the world's population, and the implications of the U.N. population projections. In Part Two, "Population Growth on a Finite Planet," Brown examines the interrelationship of population, affluence, economic growth, the growing pressure on world food resources, and the ways in which population growth increases general environmental stress. With "the problem" firmly established, Brown goes on to an examination of what he views as the two crucial areas on which to base the hope for improvement: "Common Dependence on Scarce Resources" and "Population Growth and Social Conditions."

In both, Brown argues strongly for the development of an ethic of global interdependence. In his discussion of the human condition and population growth, he makes an impressive argument for the need to improve the quality of life for the majority of the populations in all countries: "If the developing countries are to escape the threat posed by rapid population growth within an acceptable time frame, more families must acquire the motivation to limit births, not only be provided with improved means to do so. The population crisis must be confronted in the broader context of the development crisis — with more emphasis on the possible ways of treating the basic 'disease' of poverty and thereby creating the needed motivation for smaller families."

Finally, in "Confronting the Population Threat," Brown reviews a variety of strategies that have been tried in the past and concludes that there is "only one option," that which was once articulated by Robert McNamara: "The population problem will be solved one way or another. Our only option is whether it is to be solved rationally and humanely, or irrationally and inhumanely." While Brown's proposed timetable for stabilizing world population under 6 billion has met with a good deal of criticism and argument, there has been increasing evidence to support his emphasis on the need to stress global interdependence and the general improvement of social conditions as a precondition for population control.

2) Power and Choice: The Formulation of American Population Policy, Peter Bachrach and Elihu Bergman (Lexington, Massachusetts: Lexington Books) 1973 (120pp.; $10.00).

The process of policy formulation in the United States has come under increasing scrutiny with the escalation of questions rooted in complex scientific and technological factors. This is a book about how those decisions are made, specifically "about power and choice, and how power is employed in expanding or limiting choices in a process of policy formulation."

The focus of the inquiry is the question of population policy. The authors provide a fascinating, thought provoking analysis of how population policy decisions have been made in this country, what kinds of groups and individuals yield power in influencing those decisions, and how the so-called "American Population Coalition" affects the ability of the general citizen to make political decisions about population issues. Much of the recent literature on population is reviewed here in terms of how it fits into the pool of information that is available to the public. Specific representatives of population organizations, government officials, university scholars, writers, etc., are discussed in terms of the message they are giving the public and the reasons behind their recommendations as to what we should be doing to affect population trends.

The idea of power is carefully explored in the first chapter, followed by an analysis of the "politicization of ecology" and the ways in which scientific experts have increasingly become relied upon to make what are really value decisions for the general public. In "Beyond Family Planning," the authors look at the growing tendency of those within the Population Coalition to use debate techniques which essentially mask the decisions at issue, thereby making it virtually impossible for the nonspecialist to enter the debate. A closer look at the makeup of that coalition is then provided, along with a very critical analysis of the way in which their influence has worked to limit progress in the population area. The authors note, for instance, that: "The mainstream of scientific evidence demonstrates that choices about fertility are not made in a vacuum, and frequently, that choices are not made at all because people are not aware that they can be made. The conditions in which people live, their levels of prosperity, education, and knowledge determine fertility choices, or whether fertility is a policy objective, then the way to do so is by influencing these conditions within which people live. This relationship suggests the futility of policies attempting direct manipulation of individual fertility performance. Yet, direct manipulation of individual fertility remains the major operational objective of the American Population Coalition."

In the final chapter, the authors agree that what is needed is more direct participation from the groups that are most intimately affected by population policy decisions — racial minorities and women — and that the core of scientists and intellectuals involved in population issues needs to be greatly expanded. They conclude: "So long as the 'population problem' remains a circumscribed and discrete subject, neither will the professionals within the Coalition be threatened by 'foreign' consideration and expertise, nor will their colleagues within the foundations and population interest groups be confronted by 'extraneous' social and political issues. Together they can remain undisturbed to move ahead in providing contraceptive technology and services, as they determine the need."

3) The Future of Population Growth: Alternative Paths to Equilibrium, Thomas Frejka (New York: Wiley) 1973 (268pp.; $12.75).

This is a much more difficult book than are most of the references included in this bibliography, but for the serious student of population and the future, it is a book well worth the extra effort. Essentially, it is an examination of the concept of replacement fertility. It goes beyond that, however, and provides an inquiry into whether or not populations in various regions and countries should cease to grow, what kinds of lead times are involved in reaching equilibrium, whether or not it can be assumed that a specific population size is attainable by a certain point in time, and what population growth consequences are implied by current demographic features of populations. While the intention is to make this discussion comprehensible to a broad audience, there is a fair amount of statistical analysis included here, and some of the demographic arguments are a bit hard for the nonspecialist to follow.

In an attempt to overcome some of this problem, Frejka provides in the first chapter a very useful discussion of the mechanisms of population growth and an explanation of some important demographic concepts. The methods and assumptions of the study are explained in Chapter 2, and Chapters 3 and 4 provide a selection of the study findings as they apply to the world population in less developed regions, more developed regions, and in major areas of concern. Some typical countries within each of these areas are isolated for discussion in Chapter 5, and various aspects of their possible population prospects are presented. A number of possible alternative scenarios are examined in Chapter 6, and in Chapter 7, Frejka discusses the future population possibilities for the United States. Finally, some quantified objectives of population policies are evaluated, and Frejka compares population projections of the United Nations and of individual countries with projections ultimately leading to a stationary population.

While much of this is very quantitative, the descriptive test is quite clear and concise, making it possible for the nonspecialist to easily follow the main points of the argument. Additional technical notes on the methodology of the study are appended, along with a series of tables showing various population projections. (For a more popularized treatment of this topic, see: "The Prospects for a Stationary World Population," Tomas Frejka, *Scientific American* 228: 15-23, March 1973).

4) Population Policies and Economic Development, A World Bank Staff Report (Baltimore: John Hopkins University Press) 1974 (214pp.; $3.50).

There are three main questions under investigation in this study of the relationship between population growth and economic development: What considerations are relevant in determining national population growth objectives?; How effective are available policies and programs for reducing fertility?; and What new emphases in population programs and projects appear worthwhile? Most of the material assembled here is the product of a continuing internal analysis of population policies and programs carried out by the Bank as part of its own activities in support of its overall lending program.

A good review of recent demographic trends and future prospects introduces the report, followed by a fairly detailed but nontechnical discussion of the effect of population growth on economic development and on fertility. Policies to reduce fertility in developing countries are viewed as being generally successful in terms of increasing the use of contraception, but it is clear that there are still tremendous difficulties to be overcome. The whole question of incentives and disincentives for fertility reduction is examined. The authors argue that, while it is known that economic incentives operate strongly on the above average socioeconomic groups, increased attention must be directed to discerning what kinds of incentives will operate at the lower economic levels where the population problem is most critical.

Finally, the family planning delivery system is evaluated and the authors conclude that "Eradication of poverty should be considered by donors as well as by national governments. Foreign aid agencies can play an important supportive role in helping reduce fertility, not only by assisting family planning and allied population programs, but also through overall development assistance efforts. The current world economic situation has thrown in doubt the ability to maintain even the present low rates of economic growth, particularly for the poorer countries. Unless resources can be found to maintain their development, programs for the support of family planning programs may not help much."

5) Rapid Population Growth: Consequences and Policy Implications, Volume I, Summary and Recommendations (Baltimore: Johns Hopkins Press) 1971 (105pp.; $2.65).

Commissioned by the Agency for International Development, this National Academy of Sciences study provides an examination of what current rates of fertility and mortality will mean in terms of our political, social, economic, and ecological well-being. Some of America's most distinguished population experts took part in this study, including Philip M. Hauser, Dudley Kirk, T. Paul Schulta, Joe D. Wray, Myron Weiner, and Arthur J. Dyck. Their results have been published in two volumes, this brief summary report (Volume I) which provides an overview of the population crisis and makes specific policy recommendations, and a rather formidable second volume which contains the seventeen technical papers on which the recommendations are based.

The goals of the study are stated in the preface to Volume I: "We have attempted to offer policymakers reasoned options and to demonstrate the qualitative as well as the quantitative dimensions of human population change. Current research is accumulating evidence that considerations of individual and family welfare have a direct and immediate impact on the fertility behavior of parents. Equally critial are the long-term considerations of the total number of peple in relation to total food supply, resources, land, and the environment that transcend several generations, because they too must be the concern of the planner and the policymaker today.

"We believe governments need to understand that quantitative and qualitative population questions are bound to force a series of increasingly far-reaching governmental policy decisions and that the longer these decisions are avoided, the more difficult they will become. Our goal is to contribute to the scientific analysis and informed opinion that can lead to intelligent policy formulation and execution in both the public and private sectors."

To that end, the authors of this volume have produced a very readable and informative guide to the considerations that should govern our decisions in the area of population policy. Basically, their findings suggest that we need to use the tools currently at our disposal to improve the conditions of life for families, by giving parents the means and incentives to limit their fertility and to help societies balance their numbers with available food, jobs, education, health services, or resources."

6) "A Report on Bucharest," *Studies in Family Planning,* Volume 5, #12, December 1974 (39pp.; free on request) Available: The Population Council, 245 Park Avenue, New York, New York 10017.

The United Nations World Population Conference in Bucharest, Romania, in August 1974, was the first international conference of governments to discuss population and development. Held as part of the World Population Year Activities, the conference considered the relationship of basic demographic problems to economic and social development, as well as population policies and action programs needed to promote human welfare. A total of one hundred and thirty-six nations took part in the conference, making it essentially impossible for any concensus report to be issued. Nonetheless, it was an extremely important milestone in the history of the world population debate, representing a major transition which shifted population questions out of the purely technical realm of the demographers and university scholars and into the political arena where policy decisions are made.

This brief report outlines what went on during the conference and traces the major themes as they developed for consideration. A brief introduction to the background of the conference and an explanation of how it was organized introduces the report. What follows is a report of the Plenary and Committee Sessions, addressed to questions of population change and economic and social development, resources and the environment, and population and the family. The questions of abortion, the population agenda for 1984, population and politics, and donor recipient relations in international aid programs are dealt with in the tribune sessions, which are briefly reported here. The so-called "World Population Plan of Action" is described in some detail, and a concluding section provides an assessment by the authors of seven areas of consideration: Context of Population Issues, National Sovereignty and International Responsibility, Politicizing Population Issues, Objectives for Population Policy, New Directions for Family Planning, Support for Population Programs, and Mechanisms for Communication. The appendices contain the text of the World Population Plan of Action issued by the conference and a summary of population policies and programs, taken from the findings of a U.N. questionnaire given to member states, a paper given by one of the tribune session speakers, and some unpublished Population Council data.

The overall impression that this report gives is a sense of the intensely political nature of the population question and the thoroughness with which governments intertwine the issues of population growth and social and economic development. It is against this background that population policy is being decided, and it is extremely helpful to have this brief analysis as a reference guide.

7) "Policies on Population Around the World," *Population Bulletin,* Volume 29, No. 6, 1974, Richard C. Schroeder (37pp.; $1.00) Available: Population Reference Bureau, 1337 Connecticut Avenue, N.W., Washington, D.C. 20036.

Published shortly after the World Population Year Bucharest Conference, this brief survey of population policies around the world is a useful, quick overview of how various governments have responded to population issues within their own countries.

A brief discussion of the bases of population policies and their historical development introduces the discussion and gives some idea of the expenditures that various countries make on family planning programs, along with figures for the completed and ideal family size for selected countries. Schroeder then addresses the questions of types and objectives of population policies and focuses on three approaches: change in population size, change in population distribution, and change in population composition. A survey is provided of current policies of countries within seven major areas: North America, Western Europe, Oceania, The USSR and Eastern Europe, Asia, Latin America and the Caribbean, and Africa.

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Some projections as to the future directions of population policy are put forward, and the report ends with a brief summary of the World Population Conference. Simple graphs and diagrams provide useful illustration of the text throughout the report, making this a very good introductory reference for the general reader.

Part II

READINGS FOR STUDENTS HIGH SCHOOL LEVEL

PART II Readings for Students High School Level

Basic General References

1) Population, Headline Series, No. 206, Valerie K. Oppenheimer (New York: Foreign Policy Association) June 1971 (95pp.; $1.40) Available: Foreign Policy Association, 345 E. 46th Street, New York, New York 10017.

Published by a private, nonprofit, nonpartisan educational organization, this is an excellent reference for anyone seeking a quick, practical, and popularized introduction to the magnitude of the world population problem and the policy issues involved. The aim of the Headline Series, of which this book is a part, is "to stimulate wider interest, greater understanding, and more effective participation by American citizens in world affairs."

No previous exposure to the problem is assumed, and the text is almost entirely descriptive, with very little in the way of support data. Only the simplest tables and graphs are employed to illustrate the points under discussion. As a result, this is an extremely readable book, that manages to carry a great deal of information about population issues without seeming weighty or forbidding.

The introductory chapter provides an extremely useful overview of world population growth, past, present, and future. It is followed by two very informative chapters on the race between food production and population growth and the environmental impact of industrialized societies.

The remainder of the book, however, is focused on one topic — family planning. Oppenheimer does a good job of noting the difficulties involved in trying to control population growth by simply putting current contraceptive knowledge into communities via mass educational programs. She argues persuasively that quite subtle factors are at work to sustain growth rates and that the way to combat their influence is through dramatic social change away from pro-natalism, primarily through upgrading the status of women in society and generally improving the standard of living by stimulating economic development. Several policy questions are raised briefly in the concluding chapter, but for the most part this is a book designed to raise questions, to stimulate interest, and to establish a base of understanding upon which to build through further reading.

2) The World Population Dilemma, Population Reference Bureau (Washington, D.C.: Columbia Books) 1972 (79pp.; $2.00).

This is the third in a series of texts prepared by the Population Reference Bureau (PRB) in an attempt to facilitate the teaching of population concepts and issues in the primary and secondary school classroom. While this particular volume is directed to high school and college level students, it should also be quite useful to teachers or interested layman who are just beginning to learn about population problems. In particular, it provides an excellent guide to the mathematics of population study and a good general overview of six important topics: The Population Explosion — What it Means; The Origins of the Population Explosion; The Momentum of Population Growth; Population in Perspective; Population in the United States; and Three Models of the Future (the "population crash," "gradual transition to zero population growth," and "the modified Irish curve," which shows population decline because of famine and related disasters).

The discussions of all these topics are necessarily brief, nonetheless they are valuable introductions to the crucial topics in population study. Excellent graphics are used throughout to illustrate the text and to accustom the reader to the use of this mode of data display. Additional background information is provided in two appendices: "Definitions and Computations," which reviews the terminology and the statistics commonly used in population study, and "1971 World Population Data Sheet," which displays world data, country by country, on birth and death rates, infant mortality, GNP, doubling times, and growth projections to 1985.

3) Over Overcrowded World, Tadd Fisher (New York: Parents' Magazine Press) 1969 (256pp.; $4.95).

This is a useful introduction to the varied components of the world population problem. One in a series of background books, it is written simply and clearly, providing in very readable language, in simple charts and graphs, an excellent introduction to the dimensions of "Our Overcrowded World" and to the demographic statistics used to describe it.

Fisher, a former executive editor of the

Population Reference Bureau, has drawn much of her material from original sources, managing to translate that rather dry, academic literature into a fairly lively account. She ranges across everything from basic demographic facts to the subtle problematic aspects of population phenomena, including the implications not only of birth and death rates, but of changing population distribution, composition, and quality.

Beginning with population in prehistory, she traces the changes that have led to the current growth rates, explaining carefully and intelligibly how those rates have been measured and how demographers use known data to make projections about the future. The contrasting population patterns in the "have" and "have-not" nations are explained in some detail, and particular emphasis is placed on existing trends in the United States and their implications for the future. Finally, Fisher examines the "many faceted food problem" and the moral issues that impinge on population planning strategies. A glossary of terms and a brief recommended reading list is included.

4) Overpopulation: How Many Are Too Many?, Vivian Sorvall (West Haven, Connecticut: Pendulum Press) 1971 (64pp.; $1.25).

This is one in a series of publications done by Total Education in the Total Environment (TETE), a school community program launched in 1964 to study problems of the environment. Designed to bridge the concerns of the scientist and the social scientist, this book, like the others in the series, provides an excellent overview of the complexities involved in addressing an environmental problem. In this case, the problem is "overpopulation" and Sorvall, a former newspaper science editor, does a good job of briefly, but thoroughly, describing the dimensions of the population problem and the kinds of decisions that will have to be made to meet the challenge of exploding population growth.

She begins with a look at demographics and the way in which crowding impinges on our ability to maintain a minimum quality of life standard. The pattern of population growth over time is briefly examined, beginning with birth and death rates in early times and tracing their changes into the present-day situation. Other factors that influence population growth — immigration, emigration, distribution, and density — are discussed in terms of the American experience and the kinds of pressures that our population growth is putting on the environment.

In particular, Sorvall looks at the problems of resource depletion and the population/food gap, pointing out the tremendous shortages that already exist in selected countries around the world. Finally, in "Accommodation or Control?" and "Whose Responsibility Is It?", she examines the question of what is to be done about the population problem and what is meant by "family planning." Study questions are included at the end of each chapter.

5) Population, Hal Hellman (Philadelphia, Pennsylvania: J.B. Lippincott Co.) 1972 (192pp.; $5.95).

Hellman is an extremely prolific writer of science books for adolescents with a reputation for providing students with excellent introductions to sophisticated topics. This book is certainly no exception, and it should be of great interest to the student who wants to go a little more deeply into the topic of population than is possible with the other books in this section.

Hellman covers much of the same material as the other authors do, but he goes into individual topics in more depth and relies more strongly on the use of data to underscore his text. He begins with a brief discussion of the importance of population as a topic of study and points to the tremendous changes that have occurred over time in patterns of population growth. There is a brief chapter on the economics of population growth, which introduces the student to the concepts of development, rising expectations, and dependency ratios, with a particularly good explanation of age distribution figures. Demographics and the workings of the census are explained in some detail, and a separate chapter is directed to an examination of migration, internal and external. A series of chapters then focus on the consequences of population growth and the concept of maximum numbers and finite resources.

Family planning is reviewed in terms of the changes that it has undergone over the years, and specific population control strategies are briefly examined. Projections for the future of population control are discussed, and Hellman concludes with the warning that the next thirty-five years are critical ones and that the fate of future generations is being decided by what we do right now. An extensive bibliography is appended.

6) Population Growth and the Complex Society, Readings in Sociolgy Series, Helen MacGill Hughes, editor (Boston: Allyn and Bacon) 1972 (211pp.; $2.92).

This is one in a series of books prepared for use in the schools by Sociological Resources for the Social Studies, a group sponsored by the American Sociological Association and supported by the National Science Foundation. The twenty readings collected here, most of them adaptations of articles by leading demographers and social scientists, are designed to show how sociologists have dealt with some of the significant questions of population.

The broad facts of population growth, maintenance, and decline are examined in the first group of essays, which provide both an introduction to how sociologists go about studying a problem like population and an overview of the mathematics involved in quantifying population measures. Selections included address everything from the interaction between population trends and social behavior to family organization, the fertility of minorities, immigration and migration, and the social effects of economic change.

The ten essays which comprise the second part of the book provide an examination of some of the features of the complex society in which we live. The section begins with a look at the sweeping changes that a society undergoes as it passes from a tribal organization to a nation-state. It includes selections on everything from issues of manpower and the American labor force through an examination of people as consumers, the new leisure class, the social effects of automation and credit, the metabolism of cities, effects of population growth on life-style, and a look at life in the twenty-first century. Study questions and suggested readings are included.

The World Population

1) World Population Trends: Signs of Hope, Signs of Stress, Worldwatch Paper #8, Lster R. Brown (Washington: Worldwatch Institute) October 1976 (40pp.; $2.00) Available: Worldwatch Institute, 1776 Massachusetts Avenue, N.W., Washington, D.C. 20036.

This is an extremely useful overview of world population trends during the years 1970 to 1975. Designed to bring together for analysis the perplexing mass of data that has been collected around the world on birthrates, death rates, employment of women, etc., it provides the interested layman with a cohesive picture of what is happening in terms of world population patterns, and what those trends suggest for the future.

Brown is one of the foremost writers and commentators on international development and a frequent contributor to *Science, Scientific American,* and various international policy journals. He writes concisely and fluidly, managing to translate complex statistical tables and demographic concepts into language that is both understandable and interesting to the nonprofessional. There are several tables and graphs included here to illustrate the text, but for the most part this a descriptive essay which provides in broad outline an excellent summary of both the promise and the threat inherent in the population trends of the early 1970's. On the positive side, Brown notes the decline by one-third of the U.S. population growth rate between 1970 and 1975 and the general slowing in the growth of world population. Unfortunately, not all of this is due to declining birthrates, and Brown expresses substantial concern over the increasing death rate due to hunger-induced factors, including famines and malnutrition.

Brown briefly discusses the circumstances that have resulted in stable or near-stable population growth in four countries: the German Democratic Republic (East Germany), the Federal Republic of Germany (West Germany), Luxembourg and Austria and notes that several other countries are beginning to show similarly encouraging trends. He then turns to the issue of increasing death rates in the poorer countries and carefully documents the kinds of food shortages causing a decline in food reserves and an increase in famines, such as those which have thinned populations in Bangladesh, India and in the African countries south of the Sahara — Senegal, Mauritania, Niger, Upper Volta, Chad, and Mali.

Finally, Brown turns to a discussion of the population prospects for the future, focusing in particular on the growing body of evidence which indicates that "fertility levels fall most rapidly in societies in which basic social needs are satisfied."

Brown concludes: "The key to the speedy adoption of appropriate population policies in the poorest countries is likely to be the realization, squarely faced, that the only real choice governments have before them is not whether population growth will slow, but how. Will it drop because birthrates fall quickly, or because the sporadic rises in death rates witnessed during the last five years continue, becoming even more pronounced as local food producing systems deteriorate further and as food scarcities become even more serious?"

2) World Population Growth and Respose, Population Reference Bureau (Washington: Population Reference Bureau) April 1976 (271pp.; $4.00) Available: PRB, 1754 N Street, N.W., Washington, D.C. 20036.

Produced uder contract to the U.S. Agency for International Development (AID), this survey of world population trends during the decade 1965-1975 is an extremely useful reference for teachers and students alike. Major population developments, worldwide, regional, and in individual countries, are presented in a very readable text, accompanied by numerous graphs and illustrations.

The opening chapter is an overview of the world population situation. It includes a very good explanation of what the demographic figures for the past decade mean, what kinds of programs have been undertaken around the world to try to influence population trends, and what kinds of social changes — including the changing status of women — are at work to complement family planning initiatives. The population and food problem is briefly described, as are the trends toward increasing urbanization, international migration, and the impact of the women's rights movement on fertility. This is followed by a summary of population trends in eight regions (Africa, Asia, Europe, Latin America, Caribbean Islands, Near East, North America, and Oceania) and in the specific countries within those regions.

All of this is extremely useful to the student or teacher who needs a quick summary of the population situation for a specific area or country. While the individual descriptions are fairly brief, they do provide the crucial numbers and a good summary of the social forces and political trends which are influencing patterns of growth or decline. A list of agencies involved in population issues is appended, along with a table of world demographic data and a glossary of terms.

Population of the United States

1) Population and the American Future, The Report of the Commission on Population Growth and the American Future (New York: New American Library) 1972 (361pp.; $1.50).

Headed by John D. Rockefeller, III, the Commission on Population Growth and the American Future was established by Congress in response to the proposal that there should be an assessment of the impact of continued growth on our country. The results of their two-year study are set forth in the letter of transmittal: "After two years of concentrated effort, we have concluded that, in the long run, no substantial benefits will result from further growth of the Nation's population, rather that the gradual stabilization of our population would contribute significantly to the Nation's ability to solve its problems. We have looked for, and have not found, any convincing economic argument for continued population growth. The health of our country does not depend on it, nor does the vitality of business nor the welfare of the average person."

Specifically, "the Commission was asked to examine the probable extent of population growth and internal migration in the United States between now and the end of the century, to assess the impact that population change will have upon government services, our economy, and our resources and environment, and to make recommendations on how the nation can best cope with that impact." In the course of exploring those areas, the commission touched on every facet of American population considerations, making this report an excellent, comprehensive introduction to the full range of population issues in this country.

Three overview chapters introduce the report: Perspective on Population, Population Growth, and Population Distribution. These are followed by six separate chapters, each addressed to a specific area and the impact that population growth has on it: The Economy (mostly an examination of economic growth and the quality of life), Resources and the Environment (an examination of minerals, energy, water, pollution, etc. in terms of increasing population pressures), Government (the costs of public

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services, the administration of justice, the effects of government programs on population distribution), Social Aspects (age structure, the family, population density and population size, racial and ethnic minorities), and Education (with a call for increased population education, education for parenthood, and sex education). With this as background, the commission turns to an examination of "The Status of Children and Women." They give particular attention on the institutional pressures which help determine the range of options open to women, the kinds of child care alternatives which are becoming increasingly prevalent, and the basic issues in contraception, voluntary sterilization, abortion, and related methods of fertility control.

The likelihood of population stabilization is examined in Chapter 12, and the two chapters which follow are addressed to immigration and migration policies and their impact on population distribution. Finally, an overview of the state of the art of Population Statistics and Research is provided, and a set of recommendations put forward for organizational changes within the federal government, at the state level, and within private agencies. Additional information is provided in the appendices.

2) Population Profiles, Everett Lee and others (Washington, Connecticut: Center for Information on America) 1971-1976 (Series of seventeen 8-page units; $8.00/set) Available: Center for Information on America, Box C, Washington, Connecticut 06793.

Sponsored by the Council of State Social Studies Specialists and produced by the Center for Information on America, a nonprofit and nonpartisan educational corporation, these seventeen population units provide an excellent introduction to a wide range of population issues. Designed primarily for use by teachers and students at the high school and college levels, each unit is a self-contained discussion of a particular aspect of the population problem. Each is extremely readable and provides a single source compendium of up-to-date information in easy-to-read graphs and tables which illustrate the basic statistics used within the text. It is assumed that these are introductory materials and no prior exposure to population concepts is required in order to understand and use the materials presented in the series. Brief reading lists are included at the end of each unit and a study guide is currently in preparation.

Topics included so far in the series are: Why Study Population?; The United States Among Nations; The Vital Revolution: How Did We Get Where We Are Now?; The Health of Americans: Trends in Illness and Mortality; The Bearing of Children; Endless Movement: America as a Nation of Migrants; The Desertion of Our Countryside; Growth and Future of Cities; The Nation's Minorities; Education and Human Capacities; Population of the Future; The Development of the United States Census; Women in American Society: A Historical and Demographic Profile; The Elderly Population: Its Relationship to Society; and The Family.

3) The American People, E.J. Kahn, Jr. (New York: Weybright and Talley) 1973 (340pp.; $2.50).

Subtitled "The Findings of the 1970 Census," this book is the product of a journalist's attempt to sift through the voluminous data compiled by the Bureau of the Census and to translate all of those numbers into a readable summary of the American people as they exist, "in fact and not in fancy." It is a commendable undertaking and Kahn actually succeeds very well. In fact, portions of this book appeared in somewhat different form in *The New Yorker* magazine. Obviously, there is wealth of information here, enough to make even the most ardent trivia fancier a bit giddy.

At the outset, Kahn underscores the importance of the census taking that occurs every ten years and demonstrates the many ways in which the numbers that result from that survey influences our lives. But he is also careful to point out the shortcomings of the census operation, noting in particular that it is a "middle-class" operation. The U.S. census clearly fails to reach and/or count some unknown number of poor and/or homeless Americans, many of them illegal aliens..

With those qualifying points established, Kahn moves to the real heart of his task — summarizing the major trends in U.S. population growth and shifts. We are told a god deal about the major migratory patterns — from south to north, from rural to urban locations, from metropolitan to suburban areas, and from almost anywhere to California. There is some discussion of the drop in birthrates and of the many social factors which make it so difficult to predict what that change will mean to our future rate of population growth. Kahn notes the increasing tendency for American women to marry later in life and to put off the birth of their first child, and he devotes a chapter to the discussion of what marriage patterns mean to the development of a population and to its social character. Data on employment and income are summarized to provide an overview of the American work force and its standard of living, and a lengthy discussion is provided of the whole area of America's ethnicity & immigration, migration, and racial mix.

In "The Race Gap," Kahn provides a particularly illuminating description of the difference between being black or white in this country and concludes that, while progress has been made, there is still a long way to go in equalizing the quality of life experiences by the two races. Similar disparities are drawn in chapters addressed to "The Opulent Society," "The Poverty People," "The Junior Citizens," and "The Senior Citizens."

All and all, it is a very interesting and enlightening book, and while one sometimes wishes that Kahn had been a bit more discriminating in selecting data to pass along to his readers, he has done, on the whole, a very good job, making this an excellent reference for the reader who wants a basic overview of the American population and the ways in which it is shifting and growing.

4) We, The Americans, U.S. Department of Commerce, Social and Economic Administration (Washington, D.C.: Bureau of the Census) 1972 (Fifteen 15-page booklets;).45 each) Available: Superintendent of Documents: USGPO, Washington, D.C. 20402.

Issued between May 1972 and June 1973, this series of short, well-illustrated profiles on the American people, drawn from the 1970 Census data, provides an excellent composite of the myriad subgroups that comprise the U.S. population. Each combines a brief, descriptive text with a series of pictures and tables designed to illustrate predominant trends.

Titles in the series include: We, The Americans: Who Are We?; We, The Black Americans; We, The Americans, Our Homes; We, The American Women; We, The Americans: Our Incomes; We, The Mexican Americans (Bilingual); We, The Americans: Our Cities and Suburbs; We, The Americans, Our Education; We, The Americans: The Work We Do; We, The American Elderly; We, The Americans, Young Marrieds; We, The First Americans; We, The Asian Americans; We, The Youth of America; and We, The American Foreign Born.

5) Population Growth in America, Stanley N. Worton (New Jersey: Hyaden Book Co.) 176 (182pp.; $4.50).

Basically this is a population history of the United States, ranging from Benjamin Franklin's observations on population growth to a summary of the findings, conclusions, and recommendations from the 1972 final report of the Commission on Population and the American Future. The growth and fluid character of the American population are revealed through direct remarks by immigrants and workers, and U.S. land and immigration policies are explained and analyzed. The commission's conclusion flavors the message of the entire book: perhaps it was once impossible, but "our country can no longer afford the uncritical acceptance of the population growth ethic." Study questions and suggested readings are supplied at the end of each chapter.

People on the Move

1) Immigrants in American Life, Arthur Mann (Boston: Houghton Mifflin) 1974 (262pp.; $3.96).

Part of the "Life in America Series," this revision of a 1968 text has been tremendously popular with a broad spectrum of readers. Designed to examine the ways in which immigrants have become a part of the American way of life, the selections here trace the development, troubles, achievements, and present problems and prospects of the myriad peoples who have settled in America.

Part One, "The Peopling of America," consists of twenty-one short readings on three main topics: The Colonial Background, Migrations of the Nineteenth and Twentieth Centuries, and Some Personal Testimonies, a collection of eight personal accounts of life in the "New World." A more generalized examination of adaptation is provided by the essays in Part Two, "The Immigrants Adjust to America," which focuses on jobs and housing, community life, politics and the economic and cultural evidence of successful adjustment.

The other side of the coin, "America Adjusts to the Immigrants," is presented in Part Three by twenty-four essays addressed to various aspects of the clash between immigrants and resident Americans. In "Cycles of Bigotry," the authors provide a moving glimpse of the prejudice during the 1850's, the World War I persecutions of German Americans, the activities of the Klu Klux Klan in the 1920's, the difficulties encountered by Catholic populations, and the interning of Japanese Americans during World War II. The "Melting Pot" scenario is examined in a series of essays collected under the heading "Concepts of Americanism and Americanization," and the very important topic of "Immigration Policy" is dealt with in a series of essays that examine everything from the Chinese exclusion, through the use of literacy tests, the various quota restrictions that have been proposed and instigated, and the influence of racism in determining who would gain entry.

Finally, in "The Contemporary Scene," an excellent overview of the current ethnic makeup of America is provided, with particular attention to the problems of immigrants living in poverty, including the ways in which the government intervenes in their lives, and the need for more bilingual education. A brief bibliography and a series of questions for study and discussion is appended.

2) A Nation of Immigrants, John F. Kennedy (New York: Harper and Row) 1964 (111pp.; $2.92).

This is actually the revision of a book published in 1958 by Kennedy during his tenure in Congress when he was actively promoting immigration reform as a U.S. Senator. Later, as President, he undertook to rewrite much of the book and was actively involved in that project at the time of his assassination. Issued posthumously, this revised edition has become a standard in the immigration literature.

It focuses on the tremendous contributions that immigrants have made to America, but it also includes a good deal of information on what America has done for its immigrants. Kennedy begins: "In just over 350 years, a nation of nearly 200 million people has grown up, populated almost entirely by persons who either came from other lands to whose forefathers came from other lands . . . To know America . . . it is necessary to understand this peculiarly American social revolution. It is necessary to know why over 42 million people gave up their settled lives to start anew in a strange land."

In the chapters which follow, he traces the reasons for immigration, the various waves of settlers that came over the years, from pre-revolutionary times through the great Irish, German and Scandinavian influxes that occured in the 1900's. The immigrant contribution to American life is described, and two chapters are directed to a discussion of immigration policy, and how it has changed over the years, and how it needs to be reformed now.

The appendices contain a useful map, showing the distribution of immigrants across the country, a chronology of immigration, giving important dates and brief descriptions of what happened at that time, an extensive reading list, and the text of a speech given by Kennedy calling for the liberalization of immigration statutes. An excellent thirty-two page picture essay on immigration is contained within the text.

3) The Chickenbone Special, Dwayne E. Walls (New York: Harcourt Brace Jovanovich) 1970 (233pp.; $6.95).

This is the story of the thousands of people — most of them young, poor and black — who each year at graduation time in late June leave the south on buses and trains (such as the "Chickenbone Special") and head for the cities of the north. They are part of one of the largest migrations of people in history, a movement that began in the 1920's and has since poured upwards of a million people a year into the northern city ghettos.

It is a profoundly emotional experience for the people caught up in its flow and much of the drama and pathos of their uprooting is captured here in the stories of Donnie Gibson, a seventeen year old on his way from Kingstree, South Carolina to New York City, the Alston family, who moved from South Carolina to Washington, and Georgia May Perry and the "Fantastic Four." Written as an historical novel, Walls account conveys the tremendous impact that living and traveling with these people has made on him. It is a fascinating book, rich in emotion, sometimes also too close on the heart to bear, but it is one that should leave an indelible impression on its readers.

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4) Your City Tomorrow, D.S. Halacy, Jr. (New York: Four Winds Press, Scholastic Magazine) 1973 (224pp.; $5.95).

There are many juvenile books out about the city, but few provide the environmental perspective that characterizes this discussion. Halacy is the author of numerous science books for young people which describe the linkages between human behavior and environmental problems. In this well-illustrated discussion of the city of the future, he begins by describing the kinds of stress that urban populations put on their environments and the kinds of problems — pollution, crime, racial strife, etc. — that plague city dwellers. He briefly reviews the history of the city, and the growing worldwide trend toward urbanization, and the impact that it is having on the quality of life for many people.

In "Our Cities Are Sick," he provides a more detailed accounting of day-to-day urban problems and emphasizes the need for more and better urban planning. Some early planned cities are described, beginning with the garden cities of England in the early 1900's. Halacy traces the development of that idea through various garden cities in America and the new towns that sprang up around public works projects in the 1930's. Finally, Halacy explores a variety of options for the cities of the future, predicting that "the city will always be the center of civilization — in the year 2000 and in the year 5000 as well."

5) The Cities in Tomorrow's World, Challenge to Urban Survival, David R. Michelsohn and the editors of Science Book Associates (New York: Julian Messner) 1973 (189pp.; $5.79).

This book stands out for its practical and factual presentation of some solutions to problems of urban living. Rather than merely stating that people must "work together," the author believes that suburbs must be opened up to public housing, and that we must find pollution-free energy since it is unlikely that city dwellers will curtail its use. Transportation solutions such as automated expresswarp are discussed. Other topics treated are noise and trash, and attempts to create (or maintain) park and recreation areas within urban centers. A concluding chapter discusses the merits of building new cities as well as some more controversial solutions. A list of organizations which provide information on urban problems is appended.

Consequences of Population Growth

1) Population, Resources, Environment, Paul R. Ehrlich and Anne H. Ehrlich (San Francisco: W.H. Freemanand Co.) 1970 (383pp.; $8.95).

Published in 1970, this quickly became a classic reference in population/environment literature. It is a remarkably broad-based discussion of the worldwide overpopulation crisis, with special attention to the resulting demands on food, resources, and the environment in general. The introductory chapters provide a summary of the actual number of people within various populations, with their projected rates of growth, and contrasts this growing pressure against the limits of the earth in terms of space, heat, food, water, etc. This is all necessarily rather general, but it does provide the reader with a good sense of the dimensions of the conflict and kinds of decisions which need to be made.

In the chapters which follow, the Ehrlichs provide a much more detailed and comprehensive examination of specific resource factors, from food production and ecosystem balance, to questions of optimum population size, and birth control, family planning initiatives. The more subtle problems of social, political, and economic impacts are treated in a later chapter which deals with education, medical services, the legal system, and transportation and communication. Most of this concentrates on the United States, and the major discussion of the internationl scene is left for a concluding chapter. There are problems and special needs of developing countries, the stress factors which could result in world war, and the kinds of international controls which might serve to mitigate those stresses are discussed.

An overall summary and set of recommendations is provided in the concluding chapter. The appendices provide much useful information on world demography, population estimates for 1960-2000, the essential nutrients, an environmental case study (the fire ant program), an index of pesticides, a discussion of reproductive physiology and anatomy, and a fairly extensive bibliography.

2) Twenty-Two Dimensions of the Population Problem, Lester R. Brown, Patricia L. McGrath, and Bruce Stokes (Washington: Worldwatch Institute) March 1976 (83pp.; $2.00) Available: Worldwatch Institute, 1776 Massachusetts

Avenue, N.W., Washington, D.C. 20036.

Since Malthus, the study of the consequences of population growth has traditionally been focused on the interrelationship between population and food production. To some extent this has been a reflection of tendency for demographers, the primary population researchers, to seek quantifiable areas for study. It has long been known, however, that population growth has an impact on almost every aspect of our lives, and in this brief report, an overview is provided of the relationship between population growth and twenty-two of these "non-traditional" areas.

At the outset, the authors note that: "Some of the facets of the population problem explored in this monograph are economic, some are social, some are ecological, and some are political, but nearly all have one thing in common: they can be expected to get much worse before they get better. Collectively, they portray the stresses and strains associated with continued population growth in a world already inhabited by four billion people."

The twenty-two topics are: Literacy, Ocean Fisheries, Natural Recreation Areas, Pollution, Inflation, Environmental Illnesses, Hunger, Housing, Climate Change, Overgrazing, Crowding, Income, Urbanization, Deforestation, Political Conflict, Minerals, Health Services, Water, Unemployment, Endangered Species, Energy, and Individual Freedom. It is a fascinating and thought provoking survey of the critical role which population growth holds in affecting the quality of life for all of us. Discussions of the individual topics are necessarily brief, but the major points are well-documented and clearly explained, making this an extremely informative reference, suitable for a variety of audiences, from high school students, to teachers, and interested general readers. (A condensed, illustrated version of this paper is available as: "The Population Problem in 22 Dimensions," Lester R. Brown, and others, *The Futurist,* X (5): 238-245, October 1976.)

3) World Population and Food Supply, J.H. Lowry (New York: Crane, Russak and Co.) 1970 (122pp.; $6.50).

Originally printed in Great Britain, this analysis of world population growth and its implications for world food supply combines a very readable, informative text with excellent graphics and illustrations. While the author does not subscribe to the "gloomy predictions of many neo-Malthusians," he is concerned with the explosive increase in population and the pressures that growth will exert in future food requirements.

The dimensions of the population explosion are explored in the opening chapter which deals with growth and trends, the distribution of world populatin, and the general problem of feeding an ever-increasing number of people. The possibilities of extending world agriculture are examined for a variety of areas — the equatorial lands, the savannas, the arid regions, and the humid temperature lands. Methods of intensifying food production are explained, again with possibilities of unconventional and synthetic foods. Both British and metric units are used throughout the text.

4) The Geometry of Hunger, D.S. Halacy, Jr. (New York: Harper and Row) 1972 (280pp.; $9.95).

Halacy is an experienced writer of books for young people and has to his credit a long list of titles that are essentially translations of complex world issues and problems into terms that students can understand and feel comfortable reading.

He begins this discussion of world hunger with a very informative and thought provoking discussion of the history of population growth, and the problems that increasing numbers of people bring to bear on the world's limited resources. One of those resources, of course, is food, and Halacy focuses the remainder of his discussion on various aspects of the food issue: nutrition, agriculture, and the promise of the "Green Revolution." He concludes with a description of the kinds of new foods and farming techniques which lie in the future, and offers some stimulating speculation as to what the next few decades will be like.

There are illustrations and photographs throughout the text, along with some very easy-to-read graphs and charts. It is likely that this discussion will appeal most to the science-oriented student, but it should be quite intelligible and informative reading for anyone at the high school level.

5) Now or Never, The Fight Against Pollution, D.S. Halacy, Jr. (New York: Four Winds Press) 1971 (203pp.; $5.62).

D.S. Halacy authoritatively discusses many types of pollution here, including air, water, atomic wastes, solid waste disposal, and pesticides. *Now or Never* is largely a call to action against the wide-ranging environmental problems, realizing that in order to maintain an adequate "quality of life," there must be restraints that still allow use of the environment without abusing it. Successful anti-pollution efforts are noted throughout and black-and-white photos effectively show the positve negative aspects that must be considered. The list of local and federal agencies, organizations, and publications supplied for further information and involvement is one of this book's greatest assets.

Fertility Control

1) Who Shall Live? Man's Control Over Birth and Death, A Report Prepared for the American Friends Service Committee (New York: Hill and Wang, Division of Farrar, Straus and Giroux) 1970 (144pp.; $2.65).

Prepared by a Quaker study group, this examination of the complex social, legal, and moral issues involved in population control provides an excellent introduction to the varied aspects of a single, crucial question: How can we maintain the size of the population so that every individual does not merely survive, but can develop fully and participate in society in a satisfying and productive way? A number of seemingly separate questions are brought together here — abortion, contraception, increased life expectancy, genetic counseling, surgical transplants — all in an attempt to provide a thorough overview of the promise, limitations, and implications of population control initiatives.

The report begins with an examination of the role that medical advances have played in drastically lowering death rates while birthrates, in the absence of concerted fertility control measures, have stayed at a steady level, thus leading to the current population increases. A very useful summary of the religious and ethical questions that have influenced fertility control measures is provided, much of it directed to an examination of the controversies that have accompanied the use of abortion as a birth control technique.

In "Man's Control Over Death," the authors provide a thorough and fascinating examination of recent medical advances and the social and ethical questions that have been raised by the development of heart transplants, respirators, etc. Both aspects of the problem, birth control and death control are brought together in the discussions of the quality of life in which the authors examine the difficult questions of a child's right to be born versus its right to a decent life. All of this is presented in a thoughtful, sensitive discussion, designed to provide an objective, informative overview of the various issues that complicate the current birth control debate. There is one chapter, "Some Answers for Today," which provides a Quaker perspective on responses to these issues, but for the most part this is a reference which should be of use to all readers, regardless of their affiliation.

The text is extremely well-written, and there is some very useful information in the appendices: Population Data, Effect on Population Growth of Birth, Death and Fertility Rates, Reproductive Processes and Fertility Control, Positions on Abortion, Abortion Laws, New Definitions of Death, and Laws Concerning the Donation of Tissues and Organs. The only limitation on the usefulness of the information is that abortion laws have changed rather drastically since the publication of this study in 1970. Nonetheless, it provides an excellent introduction to the whole birth control issue, and one that should prove to be interesting and stimulating reading for a wide range of audiences.

2) Human Fertility and National Development, Department of Economic and Social Affairs, United Nations (New York: United Nations) 1971 (140pp.; $2.50; Sales No. E. 71. II. A12).

Subtitled "A Challenge to Science and Technology," this report is designed to increase public understanding about "the levels and trends of fertility and their impact, together with other related demographic factors, upon the development process and the life and well-being of individual families and the community."

It is very descriptive, with little emphasis on statistics or statistical methods. Rather, the attempt here is to provide a general overview of the world's population problems, the kinds of social and cultural factors which influence reproductive behavior, and the factors which contribute to successful family planning programs and activities. Unlike much of the population control literature, there is no attempt to deal with any of the ethical questions that have been raised over the means by which to limit family size. Various religious attitudes and practices which relate to behavior are noted, but for the most part the emphasis is on the need to tailor family planning programs to the social and cultural environment in question.

A good overview of the origin and nature of the population problem is provided in the opening sections along with an examination of the fertility patterns for various parts of the world and the socio-economic problems that accompany high birthrates. A careful explication of the factors involved in establishing a national family planning program is provided, much of it based on the experience gained through programs in India and other developing nations. Particular attention is directed to the social status of women within society and the implications that their level of education and literacy holds for the success of fertility control programs.

The crucial role that communications techniques play in determining the success of family planning programs is examined, with particular attention to the use of mass media and various types of incentives. The authors note the shortcomings of existing demographic statistics and analysis and point to the need for improvement in the collection of census data at the international level. Finally, a five-year program for expanded population activities by the United Nations is proposed, and there is some discussion of ways in which that program could be funded and coordinated.

The report is liberally illustrated with photographs, graphs, and maps, and the text is written in a very straightforward, readable style. Despite its brevity, it provides a very satisfactory introduction to the topic of international population control, and it is a report that should be of great use to teachers and to advanced high school students.

3) Two Children by Choice, Isadore Rossman, M.D. (New York: Parents' Magazine Press) 1970 (151pp.; $3.95).

Subtitled "The Why and How of the Two Child Family," this is a very explicit and biased treatment of family planning issues. Rossman argues strongly that it is wrong to have a large family, that it is self-indulgent and irresponsible to produce more than two children, and that the bad effects of producing large families show up not only in the pressures and restraints created for the parents, but in all sorts of problems with the children, including diminished achievement. Teenagers who have grown up in families with more than two children are likely to react rather strongly to Rossman's generalizations, which should result in some lively and useful classroom debate.

The remainder of the book is quite straightforward, providing a good overview of why overpopulation is a problem and what kinds of consequences result from crowding. A brief chapter is directed to a consideration of the physical hazards of repeated pregnancies, again a treatment that seems a bit heavy-handed, but useful for opening up a discussion of that topic. Finally, Rossman provides a good, informative discussion of contraceptive methods, concluding with a restatement of the importance of limiting family size and calling again for universal adoption of the two child family approach. A brief bibliography is appended.

Growth Versus No Growth

1) The Population Bomb, revised edition, Paul R. Ehrlich (New York: Ballantine Books) 1971 (201pp.; $.95).

Originally published in 1968, this book is often credited with popularizing the concept of Zero Population Growth (ZPG) in this country. Ehrlich, a Professor of Biology at Stanford University, views overpopulation as the dominant problem in the world today. He views the future bleakly, with the prospect of mass famine as an inevitability for the 1980's no matter what crash programs we embark upon now. Even with improved agricultural technology and various schemes to "stretch" the carrying capacity of the earth, Ehrlich foresees disaster unless these programs are accompanied by "determined and successful efforts at population control." He states in the prologue: "Our position requires that we take immediate action at home and promote effective action worldwide. We must have population control at home, hopefully through changes in our value system, but by compulsion if voluntary methods fail." This is the underlying theme throughout the discussion here, and he is quite adamant in pushing population control as the only real solution to our global problems.

Ehrlich begins by describing "The Problems," with particular attention to the concept of doubling times and the limitations of the earth's food production capacities. In "The Ends of the Road," he describes various scenarios, all of them premised on the "death rate solution," to describe the consequences of continued world population growth. He then looks at "What Is Being Done," from family planning programs to efforts to improve agricultural productivity and the various schemes being proposed as ways in which to protect our environment.

Ehrlich's personal priority list is set forth in "What Needs to Be Done," a chapter whose premise is that: "we must rapidly bring the world population under control, reducing the growth rate to zero and eventually making it go negative." Ehrlich views the United States as the key to the whole business and stresses the need for aggressive population control policies at home, through both legislation and education, and the adoption of the "triage" philosophy in determining recipients of our international financial aid. In "What Can You Do?" he recommends that people join and support such groups as Zero Population Growth (ZPG), write letters to legislators, organize action groups, etc.

Finally, in "What If I'm Wrong," Ehrlich concludes: "In other words, play it safe. If I'm right, we will save the world. If I'm wrong, people will still be better fed, better housed, and happier, thanks to our efforts." Needless to say, there has been much controversy surrounding this book, but it does provide an excellent vehicle for introducing a classroom discussion of the growth versus no growth question in general, and specifically, the matter of Zero Population Growth.

2) The Next 200 Years: A Scenario for America and the World, Herman Kahn (New York: William Morrow and Co.) 1976 (241pp.; $3.95).

Herman Kahn, founder and director of the Hudson Institute, is that rare soul — a futurist with a deep-rooted sense of optimism. He contends that the world is now at a crucial turning point in history, analogous to the Agriculture Revolution and the Industrial Revolution, and that we are about to pass through "a super-industrial period and into a post-industrial era of abundance and fulfillment."

The assumptions, analyses and conclusions that support this contention are the subject of this brief, nontechnical report, a study in which Kahn and his colleagues manage to touch on everything from population, energy, mineral resources and food to the general quality of the environment. Their perspective on the future is made clear from the outset: "In our view, the application of a modicum of intelligence and good management in dealing with current problems can enable economic growth to continue for a considerable period of time, to the benefit, rather than the detriment, of mankind. We argue that without such growth the disparities among nations so regretted today would probably never be overcome, that 'no growth' would consign the poor to an indefinite poverty and increase the present tensions between the 'have' and the 'have-nots.' Nevertheless, we do not expect economic growth to continue indefinitely; instead, its recent exponential rate will probably slow gradually to a low or zero rate. Our differences with those who advocate limits to growth deal less with the likelihood of this change than with the reasons for it."

While most of the book reflects this sort of pragmatic optimism, there are some areas, in particular the income gap between nations and long-term environmental quality, where even Kahn foresees continuing difficulties, and he admits that "various degrees of catastrophe are still possible even in the face of man's best efforts." But the basic assumption here, and the one that colors Kahn's predictions most clearly, is his belief that "projecting a persuasive image of a desirable and practical future is extremely important to high morale, to dynamism, to consensus, and in general to help the wheels of society turn smoothly." It is not surprising, then, that Kahn is extremely critical of the "limits to growth" perspective, viewing it as self-fulfilling prophecy likely to impose unnecessary trauma and suffering on those who accept its predictions. The important task ahead, he asserts, is to find the appropriate means of dealing with the problems of the present and immediate future. He concludes with a step-by-step scenario for managing everything from population and economic growth to energy, raw materials, food, pollution, and thermonuclear war.

It is, in short, a book that will surely raise the decibel level in any growth versus no growth debate, and it should easily stir a strong response from even the most casual reader.

3) "U.S. Population in 2000 — Zero Growth or Not0", *Population Bulletin,* Volume 30, No. 5

(Washington: Population Reference Bureau) 1975.

The Population Reference Bureau (PRB) is a private, nonprofit educational organization which gathers, interprets, and publishes information about population trends and their economic, environmental, and social effects. This particular issue of their bulletin is primarily directed to an examination of the Zero Population Growth question, but it also provides a very useful introduction to the basic tools of the demographer and to the recent trends in U.S. population growth.

In "Methodological Considerations," the authors provide a good explanation of what is meant by such terms as crude rates and age-adjusted rates, and how projections are determined from the data available. A brief review of population projections put forward prior to 1975 is provided, and the uncertainties involved in attempting to predict a society's population behavior are clearly pointed out. It is noted, for instance, that the demographers of the 1930's, armed with the statistics of that period which showed a marked decline in birthrates, failed to predict the extraordinary growth in population which took place in the Baby Boom period of the 1940's.

The three determinants of population growth — fertility, mortality, and migration — are then examined, particularly in terms of U.S. trends, and the authors explain how measures of trends within each of those factors have been used to make the population projections for the year 2000. With those limitations clearly explained, the authors then provide a brief summary of what the U.S. population in 2000 might look like in terms of age and sex distribution, racial distribution, educational attainment and school enrollment, and geographic distribution.

Finally, in "Zero Population Growth or Not?", they provide a useful overview of the conditions which must be met in order to achieve ZPG and conclude the following: "If the assumptions made in this *Bulletin* prove accurate the United States will not attain zero growth at any time in the foreseeable future. Indeed, we would reach 300 million population in another 50 years if fertility averages 2.1 children per woman while some slight improvements take place in mortality rates and legal immigration remains at its present level . . . Immediate zero growth or even-zero growth before the end of the century seems highly unlikely. Furthermore, drastic changes in such a short time would play havoc with the age structure of U.S. society, which in turn could create many social and economic problems."

Population Policies: Strategies for the Future

1) In the Human Interest, Lester R. Brown (New York: W.W. Norton and Co.) 1974 (190pp.; $3.45).

Subtitled "A Strategy to Stabilize World Population," this is essentially an argument for a concerted effort by the international community to satisfy basic social needs because it is in the human interest of everyone, whether in rich or poor countires. Brown views uncontrolled human fertility as the single most important threat to future well-being and security, but he also emphasizes the need to curtail the consumption patterns of the "super-affluent" who are compounding the problem by consuming a disproportionate share of the world's resources. Global ecological and social stresses, coupled with increasing resource scarcities, are problems which Brown would have us attack on two fronts: through the extension of systematic family planning services to everyone around the world and by a concerted effort to meet certain basic social needs which history shows, are instrumental in the lowering of birthrates.

A very good summary of the demographic backdrop to the current crisis is provided in Brown's opening chapter in which he examines the historical development of population growth, the mathematics of exponential growth, the structure of the world's population, and the implications of the U.N. population projections. In Part Two, "Population Growth on a Finite Planet," Brown examines the interrelationship of population, affluence, economic growth, the growing pressure on world food resources, and ways in which population growth increases general environmental stress. With "the problem" firmly established, Brown goes on to an examination of what he views as the two crucial areas on which to base the hope for improvement: "Common Dependence on Scarce Resources" and "Population Growth and Social Conditions."

In both, Brown makes a strong, impressive argument for the need for an ethic of global interdependence. In his discussion of the human condition and population growth, he makes an impressive argument for the majority of the populations in all countries: "If the developing countries are to escape the threat posed by rapid population growth within an acceptable time frame, more families must acquire the motivation to limit births, not only be provided with improved means to do so. The population crisis must be confronted in the broader context of the development crisis — with more emphasis on the possible ways of treating the basic 'disease' of poverty and thereby creating the needed motivation for small families."

Finally, in "Confronting the Population Threat," Brown reviews a variety of strategies that have been tried in the past and concludes that there is "only one option," that which was once articulated by Robert McNamara: "The population problem will be solved one way or another. Our only option is whether it is to be solved rationally and humanely, or irrationally and inhumanely." While Brown's proposed timetable for stabilizing world population under 6 billion has met with a good deal of criticism and argument, there has been increasing evidence to support his emphasis on the need to stress global interdependence and the general improvement of social conditions as a precondition for population control.

2) "Policies on Population Around the World," *Population Bulletin,* Volume 29, No. 6, Richard C. Schroeder, 1974 (37pp.; $1.00) Available: Population Reference Bureau, 1337 Connecticut Avenue, N.W., Washington, D.C. 20036.

Published shortly after the World Population Year Bucharest Conference, this brief survey of population policies around the world is a useful, quick overview of how various governments have responded to population issues within their own countries.

A brief discussion of the bases of population policies and their historical development introduces the discussion and gives some idea of the kinds of expenditures that various countries make on family planning programs, along with figures for the completed and ideal family size for selected countries. Schroeder then addresses the questions of types and objectives of population policies and focuses on three approaches: change in population size, change in population distribution, and change in population composition. A survey is provided of current policies of countries within seven major areas: North America, Western Europe, Oceania, The USSR and Eastern Europe, Asia, Latin America and the Caribbean, and Africa.

Some projections as to the future directions of population policy are put forward, and the report ends with a brief summary of the World Population Conference. Simple graphs and diagrams provide useful illustration of the text throughout the report making this a very good introductory reference for the general reader.

Part III

READINGS FOR STUDENTS JUNIOR HIGH LEVEL

PART III

Readings for Students
Junior High Level

1) People!, An Introduction to the Study of Population, Robert C. Cook and Jane Lecht (Washington, D.C.: Population Reference Bureau) 1968 (63pp.; $1.50 paper) Available: Columbia Books, Publishers, Washington, D.C.

Grades 7-9

Even though the data contained in this book might require revision, *People!* clearly details the unchanging, critical reasons for studying population — its explosive growth and concomitant problems of a shrinking world (war, hunger, poverty, urban squalor, and pollution) which directly impinge on the lives of individuals. As in other Population Reference Bureau Books, concepts and procedures (such as census taking) are explained with examples relevant to students. Considerable attention is devoted to historical background of population growth, hunger, and illiteracy in poor nations, as well as U.S. problems — resource and service shortages, and pollution. Neither space colonies, nor increased food or space for living are viewed as viable alternatives; numbers control is regarded as essential. A concise well-organized book, including black and white photos, graphs, and 1968 world population data.

2) Population, Robert J. Lowenherz (Minnesota: Creative Education Press) 1970 (120pp.; $5.95).

Grades 5-9

The "Population Challenge" faced by humanity is well-explained in this eight-chapter book, which features an interesting assortment of photos and illustrations. Population concepts and growth rates are discussed, along with food, water, and space problems. Two special sections feature discussion topics, suggestions for further study, guidelines on how to read tables, definitions of population terms, and a comprehensive list of books and films. The possibilities and problems of family planning and population control are presented objectively and should spur further discussion.

3) Earth: Our Crowded Spaceship, Published with the cooperation of UNICEF and the U.S. Committee for UNICEF in celebration of World Population Year 1974, Isaac Asimov, (New York: The John Day Co.) 1974 ($6.95).

Grades 6-9

"The population of the world is near 4 billion, it is far greater than it has ever been, and it is increasing at a rate faster than ever before in history," says Asimov, an adept writer for young people. He explains the gravity of problems arising from our limited space and resources (food, medicine, energy and raw materials), particularly the hunger, malnutrition, and disease engulfing children in many parts of the world. Overall, the presentation is challenging and serious, but not downcast, even in the five chapters devoted to the "energy crisis" and forms of energy.

Many chapters end on a challenging note — readers are asked to analyze and generalize about historical trends and "suppose" about the present and future. Problems of culture lag, conflict of ideas, education and birth control are also mentioned. Excellent U.N. photos, maps and charts, and a metric conversion table are included.

4) One Earth, Many People, The Challenge of Human Population Growth, Lawrence Pringle (New York: The Macmillan Co.) 1971 (86pp.; $4.95).

Grades 5-Up

Will continued adherence to the biblical adage: "Be fruitful, and multiply," yield a "crop of misery and death?". Pringle thoughtfully explores the numerous aspects of the "population problem" — hunger, energy, the environment and related food production problems, and efforts at slowing population growth (with the goal of zero growth rate). Japan is cited as an area having a low growth rate, and Pringle maintains that what happens there may offer clues on how population problems are resolved elsewhere.

Pringle admits at the outset his belief in biological and ecological points of view over the population controversy, warning readers that some authors fail to identify the slant to their writing. Illustrated (with black and white photos) and includes a glossary.

5) Pollution: The Population Explosion, revised edition, Claire Jones (Minnesota: Lerner Publications Co.) 1973 (86pp.).

Grades 6-9

One of the eight books in *The Real World Books on Pollution* series, this book examines the relationship between overpopulation and resultant problems: hunger, overcrowding, air and water pollution, and resource shortage. Explanations of the nature and the interrelationship of birth, death, and growth rates are accomplished clearly with diagrams and graphs.

Actualities and implications of population growth and the quality of life in the U.S., Europe, Russia, Japan, and underdeveloped countries are discussed. The global outlook is termed bleak, since rapid population growth in the latter virtually cancels out any benefits from improved food production and industrial growth. Population control as an alternative is viewed as an extremely sensitive, personal issue. Varied black and white photos; contains a glossary and an index.

6) The Population Puzzle, Overcrowding and Stress Among Animals and Men, A.H. Drummond, Jr. (Massachusetts: Addison-Wesley Publishing Co.) 1973 (143pp.; $5.50).

Grades 6-Up

Does the possibility that psychological, physiological, and sociological effects of overpopulation may turn people into zombies after the year 2000 sound like a science fiction scenario? Drummond dramatically details the seriousness of the "population problem" by presenting scientific theories and research, reporting on laboratory experiments with animals, and analyzing the life-style of selected animals in the wild. The nine, well-organized, illustrated chapters offer some clues as to what the future might hold, and should stimulate further discussion.

7) Mice, Moose and Men, How Their Population Rise and Fall, Robert M. McClung (New York: William Morrow and Co.) 1973 (64pp.; $4.25).

Grades 5-9

The problem(s) of human overpopulation are examined against the background of the balance achieved among animal populations, even when they experience a population explosion or human interference. Theories, scientific opinion, and historical efforts by governments and individuals concerning the balance of nature are discussed, along with fascinating case histories of a variety of animals — including the starling and the Pribiloff reindeer.

McClung is hopeful about dealing with population problems; he advocates stemming population growth through public education and birth control, and at the same time, curtailing reckless use of resources and stepping up recycling efforts.

An interesting text; (illustrations add little) with suggestions for further reading and an index.

8) Where the People Are, Cities and Their Future, Kathlyn Gay (New York: Delacorte Press) 1969 (148pp.; $3.39).

Grades 7-Up

This book offers no simple definitions of urban and rural areas, but does provide specific examples of U.S. cities, focusing on how geography, individuals, and economic factors have influenced and determined growth patterns.

The interdependence between urban and rural areas is stressed; urban problems — housing, transportation, pollution, crime — and attempts to solve them are analyzed. Students are told how they can gain more information and understanding about their city's situation. Also mentioned are many negative feelings about city life, as well as the "planned city" concept. Individual commitment and participation will be needed to fight the feeling that a city or community is "dead" or "dying," says Gay.

Simple line drawings accompany; a bibliography of books on the geography and structure of some urban centers is provided.

9) Central City/Spread City, The Metropolitan Regions Where More and More of Us Spend Our Lives, Alice Schwartz (New York: The Macmillan Co.) 1973 (132pp.; $4.95).

Grades 5-9

An effective, realistic examination of the problems faced in the deteriorating central city, and in the burgeoning suburb due to middle class migrations from city to suburb. Quotations from young people in both environments are injected throughout this book, essentially a case study of one area, the Tioga-Nicetown and Upper Merion Township (Pennsylvania). The extent of the problems, from crime to pollution, are presented dramatically. "We know what to do and how to improve the situation," says Schwartz, the question is — "Do we care enough?" An extensive list of further reading grouped by subject — from city life to minority groups — with selections noted for teachers, is provided. Excellent illustrations.

10) Downtown, Our Challenging Urban Problems, Robert A. Liston (New York: Delacorte Press (173pp.; $4.95).

Grades 7-9

The problems of our cities — problems of people — are thoughtfully considered in this balanced look at urban life — the ghetto, education, crime, pollution, and transportation. Liston argues that people can overcome the three overriding problems — power, money, and planning. He stresses that the theoretical and practical solutions must be synthesized to achieve "the possible."

11) Newtowns, Building Cities From Scratch, Martha E. Munzer and John Vogel, Jr. (New York: Alfred A. Knapf 1974 (150pp.).

Grades 6-9

The "planned" alternatives to the typical American city life cycle — expansion to desertion to decay — towns designed to combined the best of city and country living are discussed positively and realistically. Among the concepts and examples discussed in detail are: Ebenezer Howard's Garden City idea, the British examples of Letchworth and Welwyn, Greenbelt towns, New Towns, and American examples including Radburn, New Jersey, Greenbelt, Maryland, and Reston, Virginia. Essentially, new towns, limited in size and balanced in residential and industrial areas, are suggested as only one aspect of planned urban growth.

12) Cities Are People, S. Carl Hirsch (New York: The Viking Press) 1968 (176pp.; $4.95).

Grades 7-Up

Cities Are People succeeds in explaining the purposes and problems of modern cities by looking at their old counterparts. The development of major cities — from New York to San Francisco — is explained with an historical review of migration, human needs, and consequences of planning or lack thereof. The consequences of urban growth and change are well-presented, along with brief summaries of how some problems of pollution and congestion might be ameliorated. Indexed; illustrated; suggestions for further reading.

13) From Many Lands, Alberta Eisinaw (New York: Athenium) 1970 (216pp.; $6.75).

Grades 7-Up

The motivations and experiences of major groups (early colonists; Irish, German, Scandinavian, Italian, Jewish, and Oriental individuals) immigrating to the U.S. are examined in this ten-chapter book. Spotlight is on the years of mass immigration (1820-1920). Two basic causes noted for immigration are: escaping from poverty and searching for a new life. Considerable attention is given to obstacles faced and adjustments made by particular groups. Certain groups are not included in the discussion — Negroes, Puerto Ricans, Mexicans. Varing U.S. immigration policies are summarized. Woodcut and photo illustrations; indexed; suggestions for further reading.

14) The Newcomers, The Tales of American Immigrants, Joseph and Edith Raskin, illustrated by Kurt Werth (New York; Lothrop, Lee, and Shepherd Co.) 1974 (126pp.; $4.95).

Grades 5-7

Drawing on authentic historical records, Raskin relates adventures of colonial era emigrants from England, Scotland, Holland, Germany, Africa, Norway, Sweden, and Corsic. Included is the story of Elizabeth Garrison, a young Swedish girl who sailed for America hidden in a barrel, survived a shipwreck and settled in New Jersey, and that of Manuel Gerrit, a farmer slave who cultivated a successful farm on Manhattan Island. Illustrated with line drawings.

15) Making Our Way, America at the Turn of the Century in the Words of the Poor and the Powerless, selected by William L. Katz and Jacqueline H. Katz (New York: The Dial Press) 1975 (170pp.; $6.95).

Grades 7-Up

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Fourteen first-person accounts written largely in authentic and colloquial language comprise this unique compilation of the unfortunate living and working conditions of not-so-successful, often mistreated individuals — ranging from a sweatshop worker and sharecropper to Chinese and Mexican Americans. In essence, the book dispels any image of success and adventure for the vast majority of immigrants. Rather, the cases appear representative of widespread resentment and/or resignation to injustices, poverty, and racism. Illustrated with historic photographs. Also includes a brief list of recommended reading.

16) **It's Time for Brotherhood,** Elizabeth H. Sechrist and Janette Woolsey (Philadelphia: Macrae Smith Co.) 1973 (260pp.).

Grades 7-Up

This comprehensive volume is must reading for any thoughtful study of brotherhood — interactions among all people. It touches on religious groups, how they have influenced and been influenced, as well as individuals and organizations notable for efforts to promote better human relations, from Jacob Riis to the Red Cross. Also included is a section on civil justice, with specific mention of the particular problems and efforts of minorities. Promoting brotherhood through cultural, educational, and scientific exchanges is analyzed, and the story of the United Nations is subjected to extensive analysis. The author examines many prejudices and stereotypes, explaining their historical bases while attempting to be nonjudging their historical bases while attemptint to be nonjudgmental. The cultural understanding to be derived from this book is an important tool for coping with world population problems. Bibliography included.

17) **We Wanted to Be Free, The Refugees' Own Stories,** introduced and edited by Frances Cavanah (Philadelphia: Macrae Smith Co.) 1971 (207pp.; $6.25).

Grades 7-Up

Gratitude and willingness to face challenges in adjusting to a new way of life typifies the attitude and spirit of seventeen refugees and exiles who relate their experiences in this collection of first-person accounts. Many of these individuals emigrated well into the 20th century, often around World War II. Cavanah supplies fine introductions to each selection; she capsulizes their situation and strong desire to attain basic freedoms. There is a good geographic representation — the native countries of individuals range from Austria to Cuba. Among the inclusions are a 1957 conversation with Pablo Casals, a humorous account of learning English by Maria Augusta Trapp, and an excerpt from the autobiography of Josiah Henson, a fugitive from slavery.

18) **Block by Block, Rebuilding City Neighborhoods,** Martha E. Munzer and Helen W. Vogel (New York: Alfred A. Knopf) 1973 (164pp.; $5.95).

Grades 7-Up

The physical and spiritual rejuvenation of three deteriorated New York neighborhoods — Chelsea, Coney Island, and Jamaica — are well-chronicled in the text and diverse photos comprising this book. Positive individual and community efforts are stressed as an alternative to the despair and frustration which sometimes causes residents to destroy their own neighborhoods. Historical background on the areas is blended well with data on government programs (that contrasts the three different approaches to neighborhood renewal) and insights into social conditions. As dilapidated and overcrowded as cities or areas might be, it is imperative that they be salvaed in progressive stages: by blocks, by neighborhoods, by cities, and by urban-suburban regions. Munzer maintains that neighborhoods reflect the character of their residents; but the life cycle of a neighborhood does not necessarily have to be birth, growth, and decay. A selected reading list accompanies.

19) **The Color of Man,** Robert C. Cohen, illustrated by Ken Heyman (New York: Random House) 1968 (109pp.; $3.95).

Grades 6-Up

The superb photographs contained in this book could easily stand alone as a photographic essay. It presents a look at the varied peoples throughout our world, often with unique glimpses at their interaction. Combined with a text exploring the role of color in our lives, the elements and variations of skin, eye, and hair color, and the problems concerning brotherhood, prejudice, and discrimination, the photos give the reader much to ponder about the importance and unimportance of color. Ultimately, the book asserts "it (color) is a fact, not a standard by which we should judge people." Indexed separately for text and black-and-white photos.

20) Our Dirty Air, Sarah M. Elliott (New York: Julian Messher) 1971 (64pp.; $4.29).
Grades 5-8

Elliott terms "Ralph Nader, an inspiration to us all," and when she is not factually documenting worldwide air pollution crises, the sources of pollution, and possible solutions to reduce automobile and industrial pollutants, she urges a strong activist approach. Pittsburgh and Los Angeles are cited as two cities who took the initiative to try and clean up their air.

Part IV

READINGS FOR STUDENTS GRADES 3-6

PART IV

Readings For Students
Grades 3-6

1) This Crowded World, An Introduction to the Study of Population, Lillian B. Frankel (Population Reference Bureau) (Washington, D.C., Columbia Books, Publishers) 1970 (60pp.; $1.50 paper).

Grades 4-6

An excellent treatment of elements of the population explosion (including historical aspects) in affluent and underdeveloped areas. *This Crowded World* discusses the social, economic, and enviromental consequences of too many people in an easily-understandable fashion — through comparison, contrast, and clear graphs. A major asset of this book is that it successfully "translates" demographic facts to an appropriate experience level for elementary students. Imaginative analogies include more than the concept of "earth as a spaceship." Students are told to envision more than 100 children in their classroom (which generally has up to 30); human population is likened to corn in a popcorn popper — it is ever-expanding to fill the popper (our world) which cannot expand. Also, the struggle of poor countries is likened to the futility of building a sand castle on the beach. Essentially, this book affirms a widely held belief — population growth worldwide *must* slow down. Black-and-white photos and line drawings accompany.

2) Your Changing City, Monroe Schere, illustrations by Erwin Schachner (New Jersey: Prentice Hall) 1969 ($4.95).

Grades 3-6

Following a brief, objective definition of the "city," well-organized sections follow on city planning and land use, transportation, waste and resources — water, food, fuel, electricity, and people. Throughout, Schere injects historical tidbits, background, and notes modern attempts to deal with the city's ever-changing dilemmas. The book concludes with an interesting rundown of aspects for a future "experimental city" and some international ideas. Bright illustrations.

3) How the World's First Cities Began, Arthur S. Gregor (New York: E.P. Dutton and Co.) 1967 (64pp.; $3.75).

Grades 4-6

This book traces the evolution of cities, from the lives of hunters and farmers to modern industrial cities. Brief descriptions survey some of the historical, geographic, sociological, and religious city dwellers. The city is extolled as "perhaps man's greatest invention," a place he can make into whatever he wants.

4) Here I Am!, An Anthology of Poems Written by Young People in Some of America's Minority Groups, edited by Virginia Olsen Baron (New York: E.P. Dutton) no date (159pp.; $5.95).

Grades 3-6

Dedicated to the memory of the four girls killed in the bombing of a Birmingham, Alabama church, this anthology of poems by six twenty-year-olds, expresses a wide range of their sentiments about the poverty and hunger of their neighborhoods, prejudice and injusice, and their family life. One poem reflects concern for the resources the earth provides — food, shelter, i.e. life, and pleads for their judicious use. Messages throughout are clear and balanced — anger and sadness to pride and joy. Selections are indexed by first line and by author.

5) The Way It Is, edited by John Holland (New York: Harcourt, Brace, and World) 1969 (87pp.; $3.25).

Grades 3-5

This book offers some rare insight into the world and thoughts of black and Puerto Rican 7th and 8th grade boys living in a neglected urban neighborhood — the Williamsburgh section of Brooklyn, New York. The tone is often bleak and painfully realistic, but the words and photographs (both created as part of a motivating educational experience) are not completely despairing. *The Way It Is* is valuable for its honesty and impact.

6) Sidewalk Story, Sharon Bell Mathis, illustrated by Leo Carty (New York: The Viking Press) 1971 (73pp.; $5.95).

Grades 3-6

The realities of inner city life dominate in this portrait of devoted friendship. Lilly Etta's single-minded determination and spirited efforts to help her friend Tanya (whose family is being evicted) result in a plausible solution for Tanya's family and special recognition for Lilly Etta. Illustrations heighten the tender realism of this book.

7) My Village in India, Sonia and Tim Gidal (Panthron Books) 1956 (77pp.; $5.69).
Grades 4-6

Childrens' lives in various countries have been treated by the Gidals in their series — comprising over twenty books. It is a personalized series, and in this book, Dhan, a young Indian boy, details his daily life-style and activities. Skillfully interwoven with this narrative is a wealth of information on Indian life — family members, customs, traditions, religion, dress, dietary habits, school experiences, recreational activities, and even historical information. A good vehicle for involving and interesting children in the different lifestyles of their peers around the world, since it uses a firstperson text instead of broad, factual rundowns and generalizations. Among other countries given this comprehensive "portrait" treatment are Ghana, Germany, Italy, and Denmark. Involving and interesting.

8) A House on Liberty Street, Mary Hays Weik, illustrated by Ann Grifalconi (Atheneum, New York) 1973 (69pp.; $4.50).
Grades 4-6

The realities of immigrant life — high idealism, frustration, and accomplishment — are skillfully recounted in this story based on the life of the author's grandfather. The man whose presence grew to be cherished in the house on Liberty Street was Louis Kranz, a young German baker who emigrated to the U.S. in the mid-19th century. A midwest setting, perceptions about the Civil War period, and the special warmth that Kranz's family had for him (whether reflecting on his early life in this country, as a grandfather, or after his death) combine to make this book a fine complement to the general stories of immigrant trials and tribulations at the turn of the century in Eastern U.S. settings. The author never knew her grandfather, but in her close-knit family she learned enough about him to create this appealing vignette — the personal and historical happenings in one man's life span. Ink wash illustrations introduce each chapter.

9) Earth Is Home: The Pollution Story, June Behrens, illustrated by Samuel Bhang (Elk Grove Press) 1971 (55pp.; $5.85).
Grades 4-6

An easily-read, brief text which reviews in summary fashion the causes and effects of pollution of land, air, water, and living things. Recommended as a major first effort is the preservation of living things through establishment of game preserves and animal refuges. Watercolor illustrations are often superimposed with shadows of grey, dramatically highlighting the extent of the problem. Involvement and planning ahead must begin now, according to the book. Key words, italicized throughout the text, are listed in a glossary/index.

10) Grandma Didn't Wave Back, Rose Blue (New York: Franklin Watts) 1972 (62pp.; $4.90).
Grades 3-6

Ten year old Debbie struggles to understand and accept her grandmother's increasingly senile state. Debbie's warm reflections on the special closeness she feels for her grandmother are balanced well with family tensions and anxiety about providing the best care for her grandmother. Without over-sentimentality, this story is notable in conveying the theme of mature acceptance of changing times and the process of aging. Warmhearted illustrations.

11) What Can She Be? An Architect, Gloria Goldreich and Esther Goldreich, photographed by Robert Ipcar (New York: Lothrop, Lee and Shepard Co.) 1974 (48pp.; $4.95).
Grades 3-5

One of Lothrop's *What Can She Be* series (also including analysis of the careers of a veterinarian, lawyer, and newscaster), this book follows a woman architect through her daily projects and work. A worthwhile series for its realistic photos and attempt to show nontraditional career options for women to elementary students.

Part V

READINGS FOR STUDENTS GRADES K-4

PART V

READINGS FOR STUDENTS
Grades K-4

1) A Place to Live, Jeanne Bendick (New York: Parents' Magazine Press) 1970 (64pp.; $4.96).

Grades 2-4

Lively, appealing illustrations abound in *A Place to Live,* as Bendick demonstrates her ability to present complex concepts on an elementary level, in this case the interdependence (needs, sharing, and support) among human, plant, and animal life. Specifically, she explains the diversity of neighborhoods, communities, and environments, noting the basic needs of all living things and the threat that pollution poses for them. A simple, clear, and very important book for young children.

2) All Kinds of Families, Norman Simon, pictures by Joe Lasker (Chicago: Albert Whitman and Co.) 1976 (unpaged; $4.50).

Grades 1-3

What a family is, what it means to be part of one, and the variety of family types and experiences are all well-explored in this book. Realistic black-and-white and color illustrations show that all kinds of families are for "caring, loving, and sharing" in their own special ways. Changes, sadness, and difficult situations within families are conveyed more in the photos than the text. Overall, Simon offers a positive look at all that family life can be.

3) Families Are Like That, Stories to Read to Yourself, selected by the Child Study Association of America, Wel-Met; illustrations by Richard Cuffari (New York: Thomas Y. Crowell Co.) 1975 ($6.50).

Grades 2-4

A fine compilation of ten stories ethnically and racially balanced which offers glimpses of realistic family situations: financial problems, adoption, death, divorce. These serious topics are treated well, as are more lighhearted entries — birthday presents and a young girl who goes on a fishing trip with her father and brothers. Many selections are by well-known children's authors. Illustrated.

4) The Chosen Baby, Valentine P. Wasson (Philadelphia: J.B. Lippincott Co.) 1977 (unpaged; $5.95).

Grades K-3

Originally published in 1939, this revised edition remains a fine treatment of the process of adoption from the perspective of both parent and child. The framework is a loving family setting and familiar childhood experiences. Peter is adopted; he plays hide-and-seek, goes on family outings, and visits his grandparents. The story flows smoothly throughout and includes the adoption of a second child — a sister for Peter. Expressive, high calibre illustrations.

5) I Am Adopted, Susan Lapsley, illustrations by Michael Charlton (New York: Bradbury Press) 1974 (unpaged; $4.95).

Preschool-1

What does being adopted mean? To Charles and his sister, Sophie (both adopted) it means belonging, i.e., loving, sharing, and helping within a family unit. Soft, watercolor illustrations. A simple, handy book.

6) How People Live in the Suburbs, Also How People Live in the Big City, Muriel N. Stanek (Illinois: Benefic Press) 1970 (48pp.).

Grades 2-4

A basic look at the nature of suburb living — families, work, recreation, and schools — which amounts to a very strong promotion of suburban life — it offers more space, clean air, and recreation time. Interaction between urban and suburban school children is suggested and cooperation among suburban areas is discussed. Unique (sometimes dated) black-and-white photos are mixed with sporadic color cartoon-like illustrations.

7) The People Downstairs and Other City Stories, Rhoda W. Bacmeister, illustrations by Paul Galdone (New York: Coward, McCann and Geoghegan) 1964 (120pp.; $4.97).

Grades K-3

These twenty-five selections are of varying quality — some provide acceptable glimpses of ethnic diversity and familiar family and personal experiences for young children. With careful selection, teachers might find some stories less stereotyped and appropriate. For example, stories about a visit to the dentist, going on a family picnic, religious customs, Chinese New Year celebration, and poems on weather and playing are among the better inclusions.

8) **Cities Old and New,** William Wise, illustrations by Milá Lazarevich, 1973 (64pp.; $4.96).

Grades 2-4

The historical development of cities — their changing character to meet needs and solve problems — are superbly explained in this *Finding Out* book. Also discussed are the creation of two planned cities — Philadelphia and Washington, D.C. Wise analyzes past and present urban problems, such as resource shortages and overcrowding, and concludes that our cities to come (new ones and those that are improved and rebuilt) "will be far happier places to live than cities of today." Finely executed drawings enhance this story, laced throughout with questions for discussion and even some simple suggestions for easy, related activities.

9) **The City Book,** Lucille Corcos (New York: Golden Press) 1972 (93pp.; $3.95).

Grades K-3

The aspects and inner workings of city life — occupations, recreation, government and transportation — are portrayed in inviting watercolor illustrations that generally engulf two-page spreads. Among other topics treated in this ten-section book are neighborhoods, ethnic diversity, and the scarcity of space. The approach and content of this book, which looks at all that goes on in a city, how services are supplied, and what city life has to offer makes it most appropriate for young children.

10) **Round About the City (Stories You Can Read to Yourself) Child Study Association of America,** illustrated by Harper Johnson (New York: Thomas Y. Crowell Co.) 1966 (117pp.; $4.95).

Grades 1-3

Beginning with a story on how the city comes to life each day, this collection features short, appropriate stories on common childhood experiences: making friends, accepting and appreciating children from other countries, learning to read, and going to the supermarket. Skillfully illustrated.

11) **Waiting for Momma,** Marillta Moskin (New York: Coward, McCann and Geoghegan) 1975 (91pp.; $5.95).

Grades 1-3

A tender and perceptive vignette about immigrants adjusting to a radically different, often bewildering life in America at the turn-of-the-century, told through the eyes of a young Jewish immigrant girl, Becky. Her diligent efforts to learn English and aid her father, brother, and sister in bringing her mother and baby sister from Russia add up to a gentle, evocative tale, complemented by pleasant illustrations. The story's pace and emotional tone are well-suited to young children.

12) **My Grandson Lew,** Charlotte Zolotow (New York: Harper and Row, Publishers) 1974 (32pp.; $4.95).

Grades 1-3

A sensitive and comforting treatment of death, i.e. coping with the loss of a love. Six-year-old Lewis and his mother share their loving memories about the specialness of Lewis' grandfather, who died when Lewis was only two years old. Brief text and appealing illustrations.

13) **The Hundred Penny Box,** Sharon Bell Mathis (New York: The Viking Press) 1975 (47pp.; $6.96).

Grades 1-3

A 1976 Newbery Honor Book notable for its poignant depiction of a very special, loving bond between young Michael and his 100-year-old great great Aunt Dew (who lives with Michael and his parents). The perceptions and emotions of all the characters are most skillfully developed, particularly those of Michael, who displays tenderness and sensitivity in understanding Aunt Dew's need to cling to her few possessions — most of all, her dilapidated old box containing 100 pennies, representing each year of her life. Michael delights in having her recount events of her life, always tolerant of her — even in her more rambling, confused moments. Michael strives to be his Aunt Dew's friend — a contrast to the tensions arising when his mother (with the best intentions) assumes a caretaker role toward Aunt Dew.

Soft brown watercolor illustrations accentuate the warmth of this book — a moving portrait of family life and bonds among generations.

14) Kevin's Grandma, Barbara Williams, illustrated by Kay Chorao (New York: E.P. Dutton and Co.) 1975 (unpaged; $5.50).

Grades K-2

Using clever exaggerations, perhaps to dispel stereotypes about the aged, Williams sets up a delightful, imaginative contrast between two types of grandmothers — the "narrator's" sweet, traditional cookie-baking grandmother who drives a station wagon and belongs to bridge, garden, and music clubs; and Kevin's whimsical grandmother who zips around on a Honda 90, brings him *Mad* magazine and peanut butter soup, engages in arm wrestling, judo, and skydiving, and drinks tiger's milk at a health food bar. Delicate pen-and-ink drawings.

15) William's Doll, Charlotte Zolotow, illustrated by William Rene DuBois (New York: Harper and Row, Publishers) 1972 (30pp.; $3.39).

Grades K-3

Basketball and trains just will not do for William. More than anything, William wants a doll ("to hug and cradle") much to the chagrin of his friends and family, except for his grandmother. In her, William finds a sympathetic ally; she wisely understands and gets William just the doll he wants — so he can "practice being a father."

Appendix A:
A Guide to Films

APPENDIX A

A Guide to Films and Audiovisual Materials

Guides to Films

Audio-Visual Aids and Film Libraries for Population Education, single copies free: Zero Population Growth, Inc., 1346 Connecticut Avenue, N.W., Washington, D.C. 20036.

Audio-Visual Resources for Population Education and Family Planning: An International Guide for Social Work Educators (1975) by Jacqueline Marx Atkins, $2; International Association of Schools of Social Work, 345 East 46th Street, New York, N.Y. 10017.

Film Directory, compiled by Planned Parenthood Federation of America, single copies free; Planned Parenthood Federation of America, 810 Seventh Avenue, New York, N.Y. 10019.

People Packet and Hunger Packet, single copies free; National Association for Foreign Student Affairs, 1860 19th Street, N.W., Washington, D.C. 20009.

Population Education: Sources and Resources, single copies free; Population References Bureau, 1337 Connecticut Avenue, N.W., Washington, D.C. 20009.

Short-Term Loan Libraries

Population Reference Bureau
1337 Connecticut Avenue, N.W.
Washington, D.C. 20009
($10 rental fee per film)

Zero Population Growth, Inc.
1346 Connecticut Avenue, N.W.
Washington, D.C. 20036
($10 rental fee per film)

Population Film Coordinator
Department of Biology
University of Cincinnati
Cincinnati, Ohio 45221

Films on Population

Population: General

1) Population Ecology (19min/1964/color/sale $255.00, rent $14.00) Available: Encyclopaedia Britannica, 1822 Pickwick Avenue, Glenville, Illinois 60025.

Population dynamics, environmental impacts, growth curve, etc.

2) Issues in Population: Where the Experts Disagree (28 min/1971/color/film clip/purchase $20.00, slide show purchase $45.00, rent $2.00) Available: Cornell Film Library, Roberts Hall, Cornell University, Ithaca, N.Y. 14850.

Controversy among experts on various population issues.

3) Control or Destroy (12 min/1969/black and white/purchase $135.00, rent $15.00) Available: Films Incorporated, 1144 Wilmette Avenue, Wilmette, Illinois 60091 (order #322-0021).

Overpopulation as a potential crisis, produced by NBC.

4) There May Come A Time (7 min/1973/color/purchase $100.00, rent $20.00) Available: Films Incorporated, 1144 Wilmette Avenue, Wilmette, Illinois 60091 (order #165-0001).

A statement on the hazard of overpopulation, produced by Gordon/Glynn Productions, Inc.

5) A Threat or Promise (13 min/1975/color $70.00) Available: International Planned Parenthood Federation, 18-20 Lower Regent Street, London SW1Y 4PW Enland.

Family planning, hunger, housing, education and world health problems.

6) The People Problem (14 min each (1968/color/$35.00/two 35mm films, 3 LPs) Available: Guidance Associates, Harcourt, Brace and World, 41 Washington Avenue, Pleasantville, N.Y. 10570.

The population problem and coping with it.

7) The Population Debate
(four-part/color/$96.00/sound) Available: Sunburst Communications, 39 Washington Avenue, Pleasantville, New York 10570.

This filmstrip deals with demography, ecology and food, distribution and economics, and family planning. Descriptive flyer and order form available from above address.

8) Population: The People Problem
(2 filmstrips/24 min/1975/color/$16.95/ sound/records or cassettes) Available: Multi-Media Productions, Inc., P.O. Box 5097, Stanford, California 94305.

Examines demographic variables and trends. Teachers guide provides discussion questions, vocabulary, and reading lists.

9) Ecology Primer (18 min/1972/color/$285 purchase, $30 rental) Available: American Educational Films, 132 Lasky Drive, Beverly Hills, California 90212.

Dialogue with kids on pollution, animal extinction, and population growth.

10) More (3 min/1977/color/$50 purchase) Available: Macmillan Films, Inc., 34 MacQuestion Parkway South, Mt. Vernon, New York 10050.

An animated film illustrating the idea that "more" is not always better and may even, in fact, result in disaster.

World Population

1) A Future for Every Child (10 min/1974/color) Available: Public Information Division, United Nations, New York, N.Y. 10017.

This cartoon film depicts the urgency of the world's population problem and was produced for World Population Year by UNICEF.

2) Families Around the World (color/purchase each filmstrip $10.00, series of eight $65.90/47 frames each) Available: Encyclopaedia Britannica Educational Corporation, 425 North Michigan Avenue, Chicago, Illinois 60611 (order #9460).

This series of eight filmstrips takes youngsters on a trip around the world where on-the-spot photography shows how other children live in vastly different cultures.

3) Families of Other Lands (five filmstrips/color/purchase $10.00 each, series of five $41.00) Available: Encyclopaedia Britannica Educational Corp., 425 North Michigan Avenue, Chicago, Illinois 60611 (order #10890).

This series of five filmstrips views people living in very different countries, showing how they relate to their environment and how they make a living.

4) One World (8 filmstrips/color/purchase $88.00/4 cassettes/teacher's guide) Available: Troll Associates, 320 Route 17, Mahweh, N.J. 07430.

Portrays family life in eight countries, touring environments from farms and fishing villages to cities and a kibbutz.

5) Population (4 min/color/purchase $16.00/35mm) Available: United States Information Service.

World population, growth of population, and overpopulation dramatically depicted with soundtrack of heartbeats.

6) Population Stabilization (30 seconds/ color/purchase $20.00) Available: Zero Population Growth of Houston, 4510 Briarbend, Houston, Texas.

Cartoon depicting world as bomb with burning fuse.

7) Tomorrow's Children (20 min/ color/purchase $250.00) Available: Perennial Education, Inc., 1825 Willow Road, Northfield, Illinois 60093.

Population growth and high consumption are outstripping natural resources while life expectancy increases.

8) World Population (3 min/color) Available: Coronet Instructional Media, 65 East South Water Street, Chicago, Illinois 60601.

A graphic presentation of world population growth and distribution from 1 A.D. to the present, and projected to 2000 A.D.

United States Population

1) Population and the American Future (60 min/1974 revised/color/purchase $300.00, no rental) Available: Fisher Film Group, 356A East 50th Street, New York, N.Y. 10022.

This is the official film version of the Report of the President's Commission on Population Growth and the American Future. Discusses population growth and related issues in the U.S.

2) America's People (11 min/color/purchase $190, rent $25.00) Available: DANA Productions, 6249 Babcock Avenue, North Hollywood, California 91606.

Motion picture footage dating as far back as 1898 is interspersed with live action of today's America, emphasizing that this country was built by people from all over the world.

3) We (15 and 30 min versions/1973/color/free rental) Available: National Audio Visual Center, Washington, D.C. 20409.

Reviews findings of 1970 Census.

4) Population Boom or Doom? (60 min/1972/color/rent $25.00) Available: ABC Media Concepts, 1330 Avenue of the Americas, New York, N.Y. 10019.

Overview of U.S. population trends, keyed to commission report, **Population and the American Future.**

5) People, People, People (4½ min/1976/color/purchase $40.00) Available: National Audiovisual Center, General Services Administration, Washington, D.C. 20409.

A brilliantly animated film depicting our many-peopled heritage which brings alive the peopling of a continent and growth of a nation. Produced by the American Revolution Bicentennial Administration.

6) Fact Finder (15 min/1973/color/purchase $56.50/ 16mm) Available: National Archives and Records Service, National Audio-Visual Center, Washington, D.C. 20409.

Film produced by the Bureau of the Census showing how it amasses the statistics of a nation, not just every ten years, but weekly, monthly, and quarterly, too.

7) How Children Live in America (6 filmstrips/1975/color/purchase $66.00/3 cassettes/teacher's guide) Available: Troll Associates, 320 Route 17, Mahweh, N.J. 07430.

Presents different environments in which children live and grow, as seen through the eyes of a child in families in different locales.

8) The American Experience: Religious Diversity (18 min/1976/color/purchase $260.00, rent $25.00) Available: BFA Educational Media, 2211 Michigan Avenue, P.O. Box 1795, Santa Monica, California 90406.

Broad overview of America's religious diversity, touching on history of religion and religious freedom. Concentrates on rich variety of religious beliefs flourishing today in the U.S.

9) Six Families in the U.S. (6 filmstrips/7 min each/purchase $17.00 each, series of six $86.95/teacher's guide) Available: Encyclopaedia Britannica Educational Corp., 425 North Michigan Avenue, Chicago, Illinois 60611 (order #6446 for records, #6446K for cassettes).

These sound filmstrips present six intimate views of families living in the U.S. today, exposing the factors that enrich people's lives, as well as the problems they face.

10) Regions of the United States (7 filmstrips/12 min each/color/purchase $17.00 each, series of seven $101.50/teacher's guide) Available: Encyclopaedia Britannica Educational Corp.; 425 North Michigan Avenue, Chicago, Illinois 60611 (order #6447 for records, #6447K for cassettes).

A visual survey of the six major regions of the U.S., introducing students to its land and people, examining each region's physical and economic characteristics as well as the people that live there.

People On the Move: Immigration

1) America's Ethnic Heritage: Growth and Expansion (4 sound filmstrips with cassettes $80.00, with records $68.00) Available: BFA Educational Media, 2211 Michigan Avenue, P.O. Box 1795, Santa Monica, California 90406.

Chronicles America's growth and development from 1800's to 1880, with emphasis on contributions of immigrants.

2) A Nation of Immigrants (53 min/1969/black and white/purchase $420.00, rent $37.00) Available: Films Incorporated, 1144 Wilmette Avenue, Wilmette, Illinois 60091.

Europeans discovered the New World and the story of immigration began. Produced by Metromedia Producers Corp.

3) Ellis Island (12 min/1972/black and white/purchase $120.00, rent $15.00) Available: Films, Inc., 1144 Wilmette Avenue, Wilmette, Illinois 60091.

Ominous reality of Ellis Island at the turn of century vividly depicted in this film produced by the Metromedia Producers Corp.

4) Immigration in the 19th Century (13 min/1972/black and white/purchase $135.00, rent $15.00) Available: Films Inc., 1144 Wilmette Avenue, Wilmette, Illinois 60091.

Millions of Europe's oppressed seek freedom in North America and help build a nation.

5) Land of Immigrants (16 min/color/purchase $205.00, rent $18.00) Available: Churchill Films, 622 N. Robertson Boulevard, Los Angeles, California 90069.

People of different origins have migrated at different periods for different reasons, all contributing to the development of our nation.

6) Leaving Home Blues (51 min/1971/color/purchase $550.00, rent $23.00) Available: Films Inc., 1144 Wilmette Avenue, Wilmette, Illinois 60091.

This sensitive film produced by NBC presents the plight of unskilled rural migrants as they move to the cities, ghettos, and the welfare rolls.

7) The Uprooted (27 min/1970/black and white/purchase $250.00, rent $23.00) Available: Films Inc., 114 Wilmette Avenue, Wilmette, Illinois 60091.

By 1920, thirty-five million immigrants from all over Europe had flocked to America. This film, produced by Granada International, tells their story.

8) Westward Expansion (6 filmstrips: color/purchase $10.00 each, series of six $49.50) Available: Encyclopaedia Brittanica Educational Corp., 425 North Michigan Avenue, Chicago, Illinois 60611.

This series of six filmstrips illustrates some of the significant people, places, and events in the vast movement that brought settlers to the American West.

9) The Illegal Alien: The Gate Crashers (90 min/1976/color/$500.00) Available: American Broadcasting Company, 67 West 66th Street, New York, New York 10023.

An ABC documentary which offers a brief history of immigration trends and policies with emphasis on illegal immigration and the strain it puts on U.S. resources.

People On the Move: Urbanization

1) Altered Environments: An Inquiry into the Growth of the American Cities (10 min/1972/color/purchase $125.00, rent $15.00) Available: BFA Educational Media, 2211 Michigan Avenue, Santa Monica, California 90404.

The continued expansion of our urban centers is questioned in this film, relating that growth to our environmental destruction.

2) The American City: Problems and Promise (5 filmstrips/1975/color/5 cassettes/teacher's guide) Available: National Geographic Society, 17th and M Streets, N.W., Washington, D.C. 20036.

The past, present and future of American cities, studies in economics and government, how cities provide services and attempt to solve problems.

3) Boomsville (11 min/1969/color/purchase $150.00, rent $15.00) Available: Learning Corporation of America, 711 Fifth Avenue, New York, N.Y. 10022.

Impact of migration and urbanization.

4) The City (20 min/1972/color/purchase $260.00/English and Spanish versions) Available: Audio-Visual Productions, 8 East 36th Street, New York, N.Y. 10016.

Comparisons between poor and wealthy, history of urban development, unemployment, social conflicts, and unwanted side-effects of the rapid population growth. Produced by the Population Reference Bureau and the Division of Population Studies of the Colombian Association of Medical Schools.

5) The City and the Self (52 min/color-rent $60.00) Available: Time-Life Multimedia, Distribution Center, 100 Eisenhower Drive, Paramus, N.J. 07652.

Experiences of everyday people in cities, indifference of urban life.

6) From Cave to City (10 min/1973/ color/purchase $135.00, rent $15.00) Available: Film Fair Communications, 10900 Ventura Boulevard, Studio City, California 91604.

Shows the logical steps that occurred in man's evolvement from early wandering food gathers to the modern-day crowded dweller in huge, complex, and polluted cities.

7) Little Man, Big City (10 min/1969/ color/purchase $140.00, rent $11.00) Available: Film Library, New York University, 26 Washington Place, New York, N.Y. 10003.

Stress of urban life: overcrowding, pollution, etc.

8) Promise City (30 min/1971/color/rent $11.50) Available: Indiana University, Audio Visual Center, Bloomington, Indiana 47401.

Migration and depopulation, shown through example of an Iowa farming community.

9) The Rise of the American City (32 min/color).

The surging growth of our great cities, whose roots go back to the great migrations of the 1800s, and their efforts to confront current problems.

10) What Makes a City? (10 min/1976/ color purchase $165.00) Available: Paramount/Oxford Films, Inc., 1136 North Las Palmas Avenue, Los Angeles, California 90038.

Visits several cities of different size, illustrating that their survival and growth depend on their natural resources, creativity, and attention to the needs of all their people.

11) For Your Pleasure (4 min/1972/ color/purchase $100.00, rental $10.00 Available: Mass Media Associates, 2116 North Charles Street, Baltimore, Maryland 21218.

Animated film showing rural areas transformation into crowded metropolis.

Consequences of Population Growth

1) Feeding the Billions (4 filmstrips,/16 min each/1976/color/$95.00/records or cassettes) Available: Macmillan Audio-Visual, Macmillan Library Service, 866 Third Avenue, New York, N.Y. 10022.

Food/population interface, new production techniques, history of agriculture, etc. Teacher's manual included.

2) Five Minutes to Midnight (89 min/ 1976/color/purchase $750.00, rent $60.00) Available: Films Inc., 1144 Wilmette Avenue, Wilmette, Illinois 60061.

Overview of the consequences of world population: extreme rural poverty, world starvation, and impending global disaster.

3) The Future of Us All (28 min/1973/ color/purchase $100.00, rent $10.00) Available: Planned Parenthood-World Population Film Library, 470 Park Avenue south, New York, N.Y. 10010.

Documentary shows how life in the cities and countryside alike is affected by unchecked population growth.

4) Let's Talk About Population (25 min/1974/black and white/free loan) Available: National Association for Foreign Student Affairs, 1860 19th Street, N.W., Washington, D.C. 20009.

Discussion by six students from various countries about effects of population growth.

5) Overpopulation (13 min/1972/color/$14.95/1 record/teacher's notes) Available: Society for Visual Education, Inc., 1345 Diversey Parkway, Chicago, Illinois 60614.

Effects of the worldwide population growth in terms of the earth's physical limitations. Produced by Family Filmstrips of Singer Education and Training Products.

6) People by the Billions (28 min/black and white/purchase $240.00, rent $15.00) Available: McGraw-Hill Films, 1221 Avenue of the Americas, New York, N.Y. 10020.

This film examines the implications of our present population explosion.

7) Population (3.40 min/1972/purchase $24.95/super 8mm cassette/Technicolor) Available: Hubbard Scientific Company, P.O. Box 105, 2855 Shermer Road, Northbrook, Illinois 60062.

Population shown in scenes of waste and contamination of environment.

8) Population and Pollution (17 min/1971/color/purchase $225.00, rent $12.50) Available: International Film Bureau, Inc., 322 South Michigan Avenue, Chicago, Illinois 60604.

Relates the pollution problem to misuse of the environment and the great demands of an ever-increasing population. Emphasizes need for both long and short range planning and suggests individual action.

9) Population and Resources (2 filmstrips/color) Price information and film available: Diana Wyllie Ltd., 3 Park Road, Baker Street, London NW1, United Kingdom.

First filmstrip provides an international historical view of human population growth. The second filmstrip contrasts overweight, dieting westerners with starving children in the developing world.

10) Population and the Quality of Life (12 min/1975/color/purchase $90.00, rent $20.00) Available: Institute for World Order, 1140 Avenue of the Americas, New York, N.Y. 10036.

Impact of population growth on the quality of life.

11) Population Ecology (19 min/1966/color/purchase $163.00/teacher's notes) Available: Encyclopaedia Britannica International Ltd., Mappin House, 156-162 Oxford Street, London W1N 9DL, United Kingdom.

Man's success in shaping the environment to meet his needs has destroyed the ecological balance limiting the growth of animal and plant populations.

12) Rural and Urban Poverty: Seeds of Catastrophe (22 min/1976/color/purchase $135.00, rent $25.00) Available: Films Inc., 1144 Wilmette Avenue, Illinois 60061.

Overpopulation has forced the rural poor into constant battle to survive, driving increasing numbers into cities which can no longer absorb them.

13) Tomorrow's Children (17 min/1971/color/purchase $225.00, rent $22.00) Available: Perennial Education, Inc., 1825 Willow Road, Northfield, Illinois 60093.

Provides an overview of the way population growth has interfered with the ecological balance between man and nature.

14) Tomorrow's World: Feeding the Billions (54 min/1968/color/rent $35.00) Available: McGraw-Hill Film Preview Library, Princeton Road, Hightstown, N.J. 08520.

History of population growth, present food shortages, new farming technologies.

15) Tragedy of the Commons (23 min/1971/color/purchase $310.00, rent $22.00) Available: BFA Educational Media, 2211 Michigan Avenue, P.O. Box 1795, Santa Monica, California 90406.

Narrated by Garrett Hardin, environmentalist, this film is designed to provoke discussion of the problem of diminishing resources, expanding population, and environmental stress

16) 3,000,000,000 (10 min/1974/color/free rental) Available: International Labour Organization, 1750 New York Avenue, N.W., Washington, D.C. 20006

Relation of employment to population and consumption.

17) Sorry, No Vacancy (27 min/1973/color) Available: Malilor Films, Inc., P.O. Box 428, Malilor, California 90265.

Examines conflict between population growth and the earth's resources, especially food and energy.

Fertility Control

1) Science and Ethics of Population Control: An Overburdened Earth (36 min/1975/purchase $109.50/2 carousel trays of slides/cassettes or records) Available: Center for Humanities, Inc., Two Holland Avenue, White Plains, N.Y. 10603.

Discusses the biological and social causes of human population change, its implications, and the choices which industrial society faces.

2) Beyond Conception (35 min/1968/color/rent $15.00) Available: Population Dynamics, 3829 Aurora Avenue North, Seattle, Washington 98103.

Problems of population growth; contraception.

3) La Sortija de Compromiso (The Engagement Ring) (25 min/color/purchase $200.00, rent $12.50/Spanish language, available with English subtitles) Available: Planned Parenthood-World Population Film Library, 470 Park Avenue South, New York, N.Y. 10010.

The romantic dreams of a young engaged couple versus the harsh realities of urban life. Pedro wants a large family; Isabelle realizes the problems associated with too many children.

4) Three's a Crowd (13 min/color/rent $25.00) Available: Time/Life Multimedia, Distribution Center, 100 Eisenhower Drive, Paramus, N.J. 07652.

Interviews with three childless couples who feel that life without children is a valid one.

Growth Versus no Growth

1) EGGS (10 min/1970/color/purchase $150.00, rent $20.00) Available: Film Images, 17 West 60th Street, New York, N.Y. 10022.

A clever, witty, animated film dealing with the problem of stabilizing population growth.

2) Limits to Growth (23 min/1973/color/purchase $200.00, rent $10.00) Available: Lane Council of Governments, 135 East Sixth Street, Eugene, Oregon 97401

3) Science and Society: An Inquiry into Technology and Values: Population (2 filmstrips/$50.00/2 cassettes or records/program guide) Available: Prentice Hall Media, 150 While Plains Road, Tarrytown, N.Y. 10591 (order #655).

Examines problem of overpopulation and its ramifications for human survival. Considers ethical questions involved in curbing population growth.

Strategies for the Future

1) Doomsday: 21st Century? ($50.00) Available: Prentice Hall Media, 150 White Plains Road, Tarrytown, N.Y. 10591 (order #7650).

Looks at the energy crisis, food shortage, and population growth. Encourages students to draw their own conclusions as to what our global verdict will be.

2) The Ecological Crisis (6 filmstrips/10 min each/ purchase with cassettes $87.50, with records $81.50/3 records/study guides) Available: QED Productions, 2921 West Alameda Avenue, P.O. Box 1608, Burbank, California 91507.

Vivid graphic presentation of the crucial problems facing mankind.

3) Future Studies: The Year 2000 (2 filmstrips/1975/color/purchase $49.00/2 cassettes/teacher's guide) Available: Educational Dimensions

Thoughtful observations on what the future may hold for human beings, based on factual analysis of past and future trends in science, technology, urbanization, population, shortages, etc. and human values.

4) Tilt (20 min/1973/color/purchase $295.00, rent $25.00) Available: CRM/McGraw-Hill Films, 110 15th Street, Del Mar, California 92014.

This animated film shows by analogy how the game of share-the-wealth is played on a world scale. Graphically depicts the problems of population growth and the distribution of food and resources among the have's and have-not's.

Audio Cassettes

1) The Cities: People and Their Problems (5 filmstrips/purchase with cassettes $70.00, with records $65.00/teacher's guide) Available: Teaching Resources Films, 2 Mount Kisco Plaza, Mount Kisco, New York 10549 (cassette version #111511, record #111510).

Examines population density, changing social patterns, serious urban problems and some practical solutions (grades junior and senior high).

2) Crisis of the Environment (5 filmstrips/color/purchase with cassettes $103.00, with records $98.00 (teacher's guide) Available: Teaching Resources Films, 2 Mount Kisco Plaza, Mount Kisco, New York 10549 (cassette version #111501, record #111500).

Examines question of growing population (grades junior and senior high).

3) Famine and Population Control (51 min/$14.95) Available: The Center for Cassette Studies, 8110 Webb Avenue, North Hollywood, California 91605 (order #3360).

How twin problems of hunger and population are being solved in our modern world (grades junior, high, college, and general).

4) Feast, Famine and Families (50 min/$15.95) Available: The Center for Cassette Studies, 8110 Webb Avenue, North Hollywood, California 91605 (order #CSD 1627).

Scientists debate food and population crisis (grades high, college, and general).

5) Human Settlements — A Developing View (30 min/$12.95) Available: The Center for Cassette Studies, 8110 Webb Avenue, North Hollywood, California 91605 (order #CBC 913).

Contrasts views of industrialized and third world nations in approaches to settle expanding urban and rural populations.

6) Human Settlements — A Developed View (30 min/$12.95) Available: The Center for Cassette Studies, 8110 Webb Avenue, North Hollywood, California 91605 (order #CBC 912).

Problem of cramming expanding population into nonexpanding world disscussed by environmentalists, architects, and planners (grades high, college, and general).

7) On Population (6 filmstrips/$105/cassettes or records/teacher's guide) Available: Walt Disney Educational Media Company, 500 South Beuna Vista Street, Burbank, California 91521 (order #63-8037).

The set presents an objective look at problems caused by our exploding population. Each strip offers positive choices to help solve crucial issues (grades 7-12).

8) Population (30 min/$21.95) Available: The Center for Cassette Studies, 8110 Webb Avenue, North Hollywood, California 91605 (order #CBC 905).

Drawn from an extensive panel discussion and debate on population problem and environmental implications. Views of developed and third world contrasted (grades high, college, and general).

9) Population and War (29 min/$14.95) Available: The Center for Cassette Studies, 8110 Webb Avenue, North Hollywood, California 91605 (order #CBC 1987).

How population pressures lead to war — examines specific wars and shows how population distribution and migration of peoples have been sources of conflict (grades high, college, and general).

10) Population Control Begins at Home (20 min/$14.95) Available: The Center for Cassette Studies, 8110 Webb Avenue, North Hollywood, California 91605 (order #CSD 1489).

Paul Ehrlich suggests a route to bypass doomsday.

11) Population Growth (60 min/$15.95) Available: The Center for Cassette Studies, 8110 Webb Avenue, North Hollywood, California 91605 (order #CBC 866).

Presents conflicting perceptions of population in industrialized and third world countries — the latter viewing population as only one of many problems (grades high and college).

12) The Science of Demography (2 min/ $14.95) Available: The Center for Cassette Studies, 8110 Webb Avenue, North Hollywood, California 91605 (order #CBC 1085).

Demographers (including Lester Brown) explain the social usefulness of the study and interpretation of vital statistics (grades high, college, and general).

13) Why Cities? (5 filmstrips/$88.00/cassettes or records/teacher's guide) Available: Walt Disney Educational Media Company, 500 South Buena Vista Street, Burbank, California 91521.

This set tells the story of cities — how they began, why we need them, what's wrong with cities, and how we can improve them.

14) Wordview Unit I and Unit II (2 units, each containing 5 filmstrips/color/each unit $69.50sound/cassettes or records/80-page teacher's guide) Available: Scholastic Book Services, 904 Sylvan Avenue, Englewood Cliffs, New Jersey 07632.

A cross-cultural filmstrip program that introduces 2nd and 4th graders to basic social studies concepts by taking them on a trip around the world.

Slides and Transparencies

1) People Pack Color Slides (19 slides/color/$20.00/revised) Available: Planned Parenthood Federation of America, Inc., 810 Seventh Avenue, New York, N.Y. 10019.

Many facts and figures on trends and population made readily comprehensible, in brilliant color (grades professional).

2) Population Education and Family Planning in Marriage and Family Course (color/25x19cm overhead transparency) Available: American Home Economic Association, International Family Planning Project, 2010 Massachusetts Avenue, N.W., Washington, D.C. 20036.

Population and its socioeconomic consequences.

3) Population Reference Bureau (slides/1975-present/color/$.50 each/35mm) Available: Population Reference Bureau, 1337 Connecticut Avenue, N.W., Washington, D.C. 20036.

Prepared from maps, tables, and graphs represented in the *Population Bulletin* series and from Series I and Series II of the bureau's classroom charts, the slides cover topics such as world grain consumption, history of human population growth, and current U.S. population distribution (grades junior, high, and general).

4) U.S. Growth and Expansion (27 overview transparencies/color($85.00/5 teacher's guides unit envelopes) Available: Encyclopaedia Brittanica Educational Corporation, 425 North Michigan Avenue, Chicago, Illinois 60611 (series #30010).

Five units designed to illustrate growth and development of U.S. since Europe colonization to present (grades junior and senior).

Appendix B:

A Guide to Curriculum Materials

APPENDIX B

A Guide to Curriculum Materials

Basic General References

1) An Introduction to Population, Environment, and Society, Lawrence Schaefer (290pp.; $4.50) Available: E.P. Education Services, 625 Orange Street, No. 38, New Haven, Connecticut 06511.
Teaching manual; includes activities and background information, student workbook reprints, annotated film list and bibliography. Grades 7-12.

2) Environment and Population, A Manual of Learning Activities for Elementary Grades, Susan Pruett and Carol Harrington, P.O. Box 602, Rochester, Minnesota 48063.
Activities designed to create an awareness of population and environmental problems for grades K-6.

3) Environment and Population: A Sourcebook for Teachers, Kathryn Horsley and others (112pp.; $3.75) 1972, Available: National Education Association, 1201 16th Street, N.W., Washington, D.C. 20036.
Background information, class activities, references, A-V materials recommendations, keyed to courses in contemporary issues, family life, history/social studies, science, and sociology. Grades 7-12.

4) Focusing on Global Poverty and Development, Jayne Millar Wood (540pp.; $12.00) 1973, Available: Overseas Development Council, 1717 Massachusetts Avenue, N.W., Washington, D.C. 20036.
Source book on variety of topics in development education; including population. Includes background information; teaching aids, guide to films, etc. Grades 10-Adult.

5) The Local Community: A Handbook for Teachers, The High School Geography Project (255pp.; $5.32) 1971, Available: Macmillan, Inc., 866 Third Avenue, New York, New York 10022.
A demonstration of how to work with current and local population data. Uses population activities to explore the size of local community. Grades 10-12.

6) Malthus and America, Subcommittee on Department Operations of the House Committee on Agriculture (24pp.; $.40) 1974, Available: Superintendent of Documents, USGPO, Washington, D.C. 20402.
Thomas Malthus' doctrine: insufficient food supplies. This publication outlines the population food crisis, various bulwarks hindering attempts at solving the problem, and alternative methods of action to combat these bulwarks and resolve the food dilemma before it is too late.

7) Options: A Study Guide to Population and the American Future, Available: The Population Reference Bureau, Inc., 1337 Connecticut Avenue, N.W., Washington, D.C. 20036.
Guide for exploring population trends and their possible effects on the future, based on the official report of the Commission on Population Growth and the American Future. Discussion section plus activities, reference, and U.S. population data sheet.

8) The Population Activists' Handbook, Joan Draper, editor (Washington: The Population Institute) 1974 (174pp.; $4.95) Available: The Population Institute, 110 Maryland Avenue, N.E., Washington, D.C. 20002.
This handbook gives background, philosophy, step-by-step suggestions, fund-raising tips, and descriptions of several successful population-related projects organized on campuses or based on campuses and impacting on the larger community.

9) Population and Human Development, Elaine Murphy ($1.00) Available: The Population Institute, 110 Maryland Avenue, N.E., Washington, D.C. 20002.
A course curriculum including lesson plans,

activities, and bibliography. Multidisciplinary course outline (15 class sessions) for teacher training, undergraduate, and advanced high school students.

10) Population and Social Change: A Curriculum Guide for High School Teachers, Mark Cohen and Neil Gustafson (150pp.; $5.00) Available: Upper Midwest Council, Federal Reserve Bank Building, Minneapolis, Minnesota 55480.

General background information plus specific information on population trends and patterns in the midwest. Grades 10-Adult.

11) Population Education: Sources and Resources (Washington: Population Reference Bureau) 1975, Available: Population Reference Bureau, 1337 Connecticut Avenue, N.W., Washington, D.C. 20036.

A twenty-three page guide designed for use by teachers and community leaders. Includes listing of information sources and written and audiovisual resource.

12) Population Education Resource Kit ($2.00, including postage) Available: Zero Population Growth, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036.

A guide developed by Zero Population Growth (ZPG) to acquaint teachers with concepts and materials of population education. Includes: Introduction to Population Education; Classroom Read Materials; Background Information for Planning Lessons (including World Population Data Sheet, samples of *Interchange* newsletter and copy of *Twenty-Two Dimensions of the Population Problem*; Population Education: Sources and Resources; "The Family" Population Profile, and more.

13) Population Education Leader's Kit ($3.00 each) Available: Zero Population Growth, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036.

Designed to assist educational and community leaders in conducting teacher-training sessions in population education. Includes everything in Population Education Resource Kit (described above) plus detailed guide to conducting programs and additional resource and background information.

14) The Population Education Teacher's Workshop Package ($20.00) Available: Mass Media Associates, 2115 N. Charles Street, Baltimore, Maryland 21218.

Thirteen minute film "Population Education: So What, Who Cares? Big Deal!" Leader's guide, copies of four curricula, evaluation forms, samples of available materials.

15) Population Growth in the United States and Mexico: A Geographical Analysis, John Dak and Marion Rice (Athens, Georgia: University of Georgia) 1972 (96pp.; $1.25) grades 4-7, Available: Geography Curriculum Project, University of Georgia, 107 Dudley Hall, Athens, Georgia 30601. Also available: *Black Population Distribution and Growth in the United States* (one text and one response book $2.00; Level 6-7-8) and *Population Growth and World Food Resources* (single copy, $3.00; Level 7-8-9).

A two-week self-study unit designed to introduce students to basics of demography.

16) Population, Resources, and the Environment ($4.25) Available: Superintendent of Documents, USGPO, Washington, D.C. 20402.

Detailing different rates of population growth in America and possible effects.

17) Population: The People Problem ($16.95) 1975, Available: Multi-Media Productions, Inc., P.O. Box 5097, Stanford, California 94305.

Filmstrip/cassette plus teachers manual: Part I (13 min) deals with basic concept of fertility, mortality, doubling times, etc.; Part II (22 min) deals with issues such as population and economic growth, food supply strategies for the future, etc.

18) "Population; The U.S. — A Problem; the World — A Crisis," *New York Times Sunday Supplement* (single copies free) April 30, 1972, Available: Population Supplement, P.O. Box 6586, Washington, D.C. 20009.

Supplement contains a statement of the Population Commission's findings and specific recommendations. Also includes statements by international figures, spokesmen for minorities, women, and religious groups, and teachers guide. Grades 7-Adult.

19) Selected Recommended Materials for Population Education (free) Available: Zero Population Growth, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036.

Six-page guide to teaching materials, background readings, where to find additional materials, and charts and posters.

20) "Strategies for Population Education: Twelve Steps to Incorporate Population Education into Your Public Schools" (single copies of brochure free) Available: The Population Institute, 110 Maryland Avenue, N.E., Washington, D.C. 20002.

21) "Teaching About Population," *Intercom,* Center for War/Peace Studies, No. 72 ($1.50) 1973, Available: *Intercom,* Center for War/Peace Studies, 218 E. 18th Street, New York, New York 10003.

Resources guide on population issues. Background information; lesson plans, list of teaching materials, etc. Grades 9-12.

22) Teaching Population and Family Planning ($2.33) 1974, Available: IPPF, 18-20 Lower Regent Street, London SW1Y 4PW England.

A packet developed for teachers containing resource lists, bibliographies, booklets on population, information about International Planned Parenthood Federation (IPPF), etc.

23) Understanding Population: A Short Primer and A Glossary of Terms, Information Bulletin #18, Douglas N. Ross (New York: The Conference Board) March 1977 ($3.00) Available: The Conference Board, 845 Third Avenue, New York, N.Y. 10022.

24) ZPG Leaflets ($.12 each) Available: Zero Population Growth, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036.

Brief 4-6 page discussion of population topics. Titles include: Population Myths, Teenage Pregnancy, Facts on Abortion, Limits to Growth, U.S. Population Policy.

25) Population Education Activities for the Classroom, Selected and developed by Judith M. Schultz and Herbert L. Coon (Columbia, Ohio: ERIC Center for Science, Mathematics, and Environmental Education) January 1977.

Produced under contract to the National Institute of Education, this 183 page compendium includes suggestions of over 100 classroom activities at the elementary through high school level. Subject areas include social studies, science, mathematics, home economics, language arts, and art. A glossary, pre- and post-factual and attitudinal tests, and an annotated guide to resources are included. Available: ERIC Center for Science, Mathematics, and Environmental Education, the Ohio State University, 1200 Chambers Road, 3rd Floor, Columbus, Ohio 43212.

Fact Sheets, Charts, and Posters

1) More: The Interfaces Between Population, Economic Growth and the Environment (44pp.; $.75) April 1972, Available: League of Women Voters of the U.S., 1730 M Street, N.W., Washington, D.C. 20036.

Statement of demographic factors influencing population change, distribution, and growth and discussion of the relationship between economic, environmental, and population factors. Bibliography included.

2) Population Periodicals Chart, Available: The Population Institute, 110 Maryland Avenue, N.E., Washington, D.C. 20002.

List of periodicals in field with addresses and subscription prices.

3) Population Poster Packet ($1.50 for set of six posters) Available: Population Institute, 110 Maryland Avenue, N.E., Washington, D.C. 20002.

Illustrations of population and environmental problems by children and adults.

4) Population Profiles, Population Statistics, What Do They Mean?, Available: Population Institute, 110 Maryland Avenue, N.E., Washington, D.C. 20002.

Fact sheets on understanding demographic data.

5) Population Synthesis 1976, Available: Population Institute, 110 Maryland Avenue, N.E., Washington, D.C. 20002

One-page fact sheet on world population and effects of our population growth.

6) World and U.S. Population Charts (set of 8 wall charts, each with 10 notebook-size reproductions/$3.50; one chart with 10 notebook-size reproductions/$.50) Available: Population Reference Bureau, 1754 N Street, N.W., Washington, D.C. 20036.

Topics: World Population Growth; World Birth and Death Rate (estimate); World Urbanization 1800-2000; The Development Gap; Age-Sex Population Pyramids; Rapid, Slow and No Growth Models; Components of U.S. Population Growth 1900-1974; Distribution of U.S. Population 1975; U.S. Immigrants by Regions of Origin, 1820- 1974.

7) U.S. Population Data Sheet (10pp.; $.50) 1972, Available: Population References Bureau, Inc., 1337 Connecticut Avenue, N.W., Washington, D.C. 20036.

8) World Population Data Sheet, Available: Population Reference Bureau, Inc., 1337 Connecticut Avenue, N.W., Washington, D.C. 20036.

Annual publication showing population size, birthrates, growth rates, etc.

9) ZPG Factsheets (single copies free; write for complete price list which includes discounts on multiple copies) Available: Zero Population Growth, 1346 Connecticut Avenue, N.W., Washington, D.C. 20036.

Titles: U.S. Population, 15 Facts You Should Know About Abortion, Illegal Immigration, A U.S. Population Policy: ZPG's Recommendations, The Right to Choose: Facts on Abortion, The One-Child Family, Teenage Pregnancy: A Major Problem for Minors, The Benefits of Zero Population Growth.

Games

1) Balance ($12.00) Available: Interact, P.O. Box 262, Lakeside, California 92040.

Explores conflict between the social-economic values necessary for a family to function and ecological values necessary for our physical environment to survive. Emphasizes problems of air pollution, water and power, land use, and population. Grades 10-12.

2) Baldicer ($25.00) Available: John Knox Press, Box 1176, Richmond, Virginia 23209.

Simulation games on feeding the world population; stresses concepts of economic interdependence, food production, population management. Grades 10-12.

3) Eco: An Island Simulation Game, Anita Yoder and John Landahl ($1.00) 1975, Available: Dolphin Enterprises, 2435 North Northlake Way, Seattle, Washington 98103.

Designed to simulate interactions of human and animal populations in a closed ecosystem; employs math, language, and social science skills. Grades 4-12.

4) Ecology ($7.00) Available: Damon/ Educational Division, 80 Wilson Way, Westwood, Massachusetts 02090.

To acquaint students with the economic and environmental challenge of three ages of civilization — hunting, agricultural, and industrial. Grades 4-12.

5) Ecopolis ($12.00) Available: Interact, Box 262, Lakeside, California 92040.

Introduces students to concept of ecosystem and interdependence, with special emphasis on land use and population problems. Grades 4 and 6.

6) Explosion, Dan Guida, Roger Henke, and Dennis Porter ($20.00) Available: Interact, P.O. Box 262, Lakeside, California 92040.

Social pressures of population growth; resources, consumption, and the environment; governmental decision making on population crisis. Thirty-five student guides and one teachers guide. Grades 10-12.

7) Food for Thought, A Population Simulation Kit ($3.00) Available: Population Institute, 110 Maryland Avenue, N.E., Washington, D.C. 20002.

Updated, expanded version of *Global Geography,* jointly developed by the Population Institute and the Population Reference Bureau. Designed for the understanding of the relationships, problems, and consequences involved in population growth and distribution of people, food, and land area.

8) Games for the Science Classroom, Paul B. Hounshell, Ira R. Trollinger (Washington, D.C.: NSTA) 1976 ($3.75) Available: National Science Teachers Association, 1742 Connecticut Avenue, N.W., Washington, D.C. 20009.

Publication to provide science teachers with the means to enhance the learning environment through the use of instructional games.

9) Global Futures Game ($5.00) Available: Earthrise, P.O. Box 120, Annex Station, Providence, Rhode Island 01901.

Simulation of present and future trends in population, food, technology, etc. Grades 10-Adult.

10) The Planet Management Game ($22.00) Available: Houghton Mifflin Company, One Beacon Street, Boston, Massachusetts 02107.

Designed to help students understand problems of pollution, population explosion, and famines. Grades 7-12.

11) Population: A Game of Man and Society ($10.00) Available: Urban Systems, Educational Division, 80 Wilson Way, Westwood, Massachusetts 02090.

Uses hypothetical planet to model problems of growing population and finite resources. Grades 10-Adult.

12) Population and Environment — Crossword Puzzle (5 pages) Available: Center for Cultural and Technical Interchange Between East and West, 17777 East-West Road, Honololu, Hawaii 96822.

Puzzle using population and environment technology with answer sheet.

13) Simulation Games for the Social Studies Classroom, William A. Newbitt (New York: Thomas Y. Crowell Co.) 1971 ($2.50).

14) Starpower ($12.50) Available: Simile II, P.O. Box 1023, La Jolla, California 92037.

Designed to introduce students to problems of unequal resource distribution throughout the world; importance of trade to economic development. Grades 10-Adult.

Kits and Packets

1) The American City, Multimedia Kit No. 6976 K, Available: Encyclopaedia Britannica Educational Corporation, 425 North Michigan Avenue, Chicago, Illinois 60611.

The changing character of American society over the past 250 years is depicted in this study of three dynamic cities, considering quality of life in the past, present, and future. Includes three sound filmstrips with cassettes; two audiocassettes; student resource readers; sixteen spirit masters, sixteen miniprints, and teacher's guide. Grades junior and senior.

2) Episodes in Social Inquiry, Sociological Resources for the Social Studies, 1972-73, Available: Allyn and Bacon, 470 Atlantic Avenue, Boston, Massachusetts 02210.

Four episodes related to population: Family Size and Society (54pp.; 10 copies for $6.30); Migration Within the U.S. (51pp.; 10 copies for $6.50); Population Change. Each episode is an eight 12-day unit in which students work with data in development and testing of hypothesis. Includes student resources and complete instructors guide. Grades 10-12.

3) The Immigrant Experience, William D. Travis (70pp.; $4.50) Available: Wider Horizons

Project, Foreign Policy Association, United Nations Plaza, 345 East 46th Street, New York, N.Y. 10017.

Five lesson plans on various aspects of immigration and adjustment; teachers guide and student workbook included. Grades 7-12.

4) The People Pack ($3.00) Available: Planned Parenthood Federation, 810 Seventh Avenue, New York, N.Y. 10019.

Family planning and population; facts, arguments, statistics, charts, bibliography, glossary, and quotations (194 color-coded cards: 6" x 4"/packet).

5) The People Packet: Is There a Population Problem? Whose Problem Is It?, Available: National Association for Foreign Student Affairs (NAFSA), 1860 Nineteenth Street, N.W., Washington, D.C. 20009.

Guide for Planning Population Programs; Population Organizations and Centers; Speaker Sources; Bibliographies, etc.

6) Population Dynamics ($4.80) Available: Self-Instructional Materials Project, Health Services Consortium, P.O. Box 2686, Chapel Hill, North Carolina 27514.

Self-instructional package — role of physician in population growth; workbook and test sheets.

7) Population Education Packet, Judith Kunofsky (48pp.; free) Available: Sierra Club, 1050 Mills Tower, San Francisco, California 94104.

Contains pamphlet on "Population and the Sierra Club," classroom projects, lesson plans, etc. Grades 7-Adult.

8) Population Programs Kit ($2.00) Available: Population Institute, 110 Maryland Avenue, N.E., Washington, D.C. 20002.

Directory of organizations which provide population speakers, film lists, guides to simulation games on food, population, sex roles and other program ideas.

9) Eco-Kit ($30.00) 1975, Available: E-P Education Services, c/o ACES, 800 Dixwell Avenue, New Haven, Connecticut 06511.

Slides and cassettes. An introduction to 6 areas of intense environmental concern; designed for independent study using cassettes, slides, guide sheets, and bibliographies.

Appendix C:

Sources of Information and Materials

APPENDIX C

Sources of Information and Materials

These are just a few of the organizations working in the areas of population and population education. For a more complete listing, see:

Population Education: Sources and Resources

Population Reference Bureau, Inc.
1337 Connecticut Avenue, N.W.
Washington, D.C. 20009

Organizations	Newsletters and Series Publications
Center for Information on America P.O. Box C Washington, Connecticut 06793	*Vital Issues* (see Readings for Teachers, Ref. I)
Center for War/Peace Studies 218 East 18th Street New York, New York 10003	*Intercom* (quarterly; $6.00/year)
International Planned Parenthood Federation 18-20 Lower Regent Street London SW7Y4PW England	*People* (quarterly; $6.00/year)
Overseas Development Council 1717 Massachusetts Avenue, N.W. Washington, D.C. 20036	*Communique* ($.10 each) *Development Paper* ($.50 to $1.00 each)
Planned Parenthood Federation of America 810 Seventh Avenue New York, New York 10019	*Family Planning Perspective* (quarterly; $15/year) *Family Planning/Population Perspective* (bimonthly; $18/year) *Washington Memo* (20 issues; $15/year)
The Population Council One Dag Hammarskjold Plaza New York, New York 10017	*Studies in Family Planning* (monthly) *Current Publications in Population/Family Planning* (bimonthly)
Population Crisis Committee 1120 18th Street, N.W. Washington, D.C. 20036	*Draper World Population Fund Reports* (biannually; free)
The Population Institute 110 Maryland Avenue, N.E. Washington, D.C. 20002	*Population Issues* (bimonthly; $3.50/year)
Population Reference Bureau, Inc. 1337 Connecticut Avenue, N.W. Washington, D.C. 20036	*World Population Data Sheet* (annual) *Intercom* (monthly) *Interchange* (bimonthly population education newsletter) *Population Bulletin* *PRB Report* All available to teachers for $5.00 annual membership

Organizations	Newsletters and Series Publications
Sierra Club 530 Bush Street San Francisco, California 94108	*Sierra Club Bulletin* (annual; $8/year) *Population Report* (bimonthy; free)
World Population Society 1337 Connecticut Avenue, N.W. Washington, D.C. 20036	*Newsletter* (quarterly; with membership, $5.00/year)
Worldwatch Institute 1776 Massachusetts Avenue, N.W. Washington, D.C. 20036	*Worldwatch Paper* ($25/year, subscriptions for papers and books, papers $2.00 each with discounts for larger orders)
Zero Population Growth, Inc. (ZPG) 1346 Connecticut Avenue, N.W. Washington, D.C. 20036	*ZPG National Reporter* (10 issues, $5.50/year; fact sheets; population education kits; media target list, etc.)
Agencies	
United Nations Department of Economic and Social Affairs Population Division United Nations Plaza New York, New York 10009	*Demographid Yearbook* ($22.00)
United Nations Fund for Population Activities 485 Lexington Avenue New York, New York 10017	*UNFPA Newsletter* (monthly; free) *Populi* (monthly; free)
U.S. Department of Commerce Bureau of Census Population Section Washington, D.C. 20233	10 year Census reports on the nation plus state reports and special current series.
U.S. Department of Health, Education, and Welfare Office of Population Affairs South Portal Building 200 Independence Avenue, S.W. Room 724-H Washington, D.C. 20201	
U.S. Department of State Agency for International Development Office of Population Rosslyn Plaza East Room 515 Washington, D.C. 20523	*Population Program Assistance* (annual; free)
Bibliographies	
Bibliography of Society, Ethics and the Life Sciences The Hastings Center 360 Broadway Hastings-on-Hudson, New York 10706	

Bibliographic Series
Technical Information Service
Carolina Population Center
University Square
Chapel Hill, North Carolina 27514

Current Publications in Population/Family Planning
Information Office
The Population Council
245 Park Avenue
New York, New York 10017

Population Education: A Selective, Annotated Bibliography for United States Schools
The Demographic Division
The Population Council
245 Park Avenue
New York, New York 10017

Population Education: Sources and Resources
Population Reference Bureau
1337 Connecticut Avenue, N.W.
Washington, D.C. 20036

Population Index
Office of Population Research
5 Ivy Lane
Princeton, New Jersey 08540

Science for Society Bibliography
Office of Science Education
American Association for the Advancement of Science
1776 Massachusetts Avenue, N.W.
Washington, D.C. 20036

Selected Bibliography: Small Library of Family Planning and Population
Planned Parenthood/World Population
Katharine McCormick Dexter Library
810 Seventh Avenue
New York, New York 10019

Sourcebook on Population, 1970-1976
Population Reference Bureau
1337 Connecticut Avenue, N.W.
Washington, D.C. 20036

The People Packet
National Association for Foreign Student Affairs
1860 19th Street, N.W.
Washington, D.C. 20009

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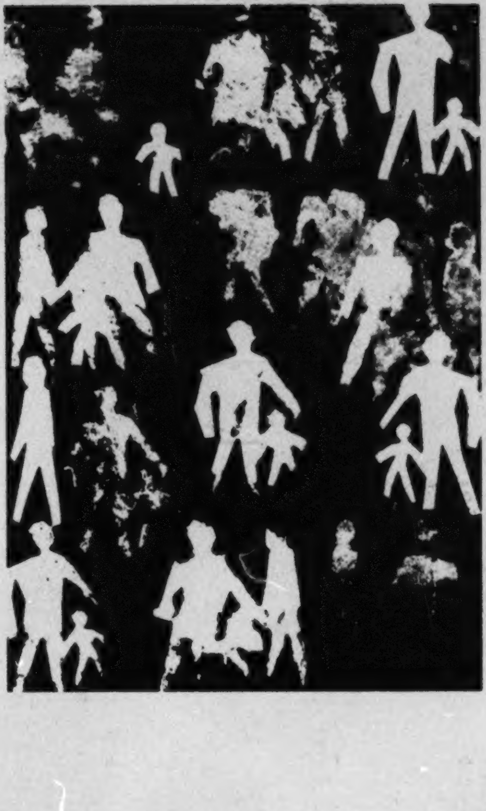The development of these materials was supported by the Office of Environmental Education under the Environmental Education Act of 1970 (P.L. 93-278).